DOCUMENT RESUME

ED 180 148 EC 121 847

TITLE	A Study of the Integration of Handicapped Students in the Regular Schools of the Calgary Board of Education. Complete Report: Findings, Conclusions and Recommendations, Appendix A and Appendix B.
INSTITUTION	Canadian Inst. for Research, Calgary (Alberta).
SPONS AGENCY	Alberta Dept. of Education, Edmonton. Planning and Research Branch.: Calgary Board of Education (Alberta).
PUB DATE	30 May 78
NOTE	519p.
EDRS PRICE	MF02/PC21 Plus Postage.
DESCRIPTORS	*Educational Needs: *Estimated Costs: *Foreign Countries: *Handicapped Children: *Mainstreaming: Public Schools
IDENTIFIERS	*Calgary Board of Education Alberta: *Canada

ABSTRACT

The document, most of which consists of two appendixes, presents the complete report of a 1977 study on the extent and effects of mainstreaming handicapped children into the Calgary Public School System in Canada. The first section--the final report--provides summary statements of study findings for each of the 10 data sources, together with a discussion of conclusions and recommendations concerning the following areas: the need for board leadership and development, the need for individualized planning for mainstreamed students, the need for a longitudinal impact study, the need for demonstration schools, the need for improved strategy in all schools with mainstreamed students, and the need for continued board support of special education services and of mainstreaming. A summary of the entire study is also provided. Appendix A is a discussion of a proposed methodology to estimate costs of implementation of the recommendations contained in the final report. Costs are analyzed on a per-pupil basis and are compared with expenditures for regular students in order to set forth mean indices for various exemplary programs. Appendix B presents supporting reports of the study, describing in detail the research methods and findings from each of the 10 data sources. (DLS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED180148

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

COMPLETE REPORT

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

APPENDIX A AND APPENDIX B

A STUDY OF THE INTEGRATION OF HANDICAPPED STUDENTS IN THE REGULAR SCHOOLS OF THE CALGARY BOARD OF EDUCATION

Commissioned by:
Calgary Board of Education
Education Centre Building,
515 Macleod Trail S.E.
Calgary, Alberta
T2G 2L9

Produced by:
Canadian Institute for Research
109 Brentwood Professional Building
3501 Charleswood Drive N. W.
Calgary, Alberta
T2L 2C2

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
M. R. Lenske

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

May 30, 1978

Partially Funded by the Planning and
Research Branch of Alberta Education

EC121847

Abstract

The Canadian Institute for Research was commissioned in June 1977 by the Calgary Board of Education to study the extent and the effects of integration of handicapped children into the regular schools of the Calgary Public School System. Recommendations were requested concerning optimal levels of integration, and concerning costs of achieving these optimal levels.

Background information was obtained through literature review and through preliminary exploratory interviews with various knowledgeable persons in the Calgary community. Extent of integration was assessed through analysis of statistical records from central administrative offices, and through direct questioning of principals. Opinions concerning effects of and desired levels of integration were sought through interviews with principals, regular teachers, special education teachers and parents of handicapped children. Contact was established with five other Canadian school systems of comparable size to the Calgary public system. The non-Calgary systems were questioned for information on extent of integration within their schools, and for report of operational problems or successes which could be relevant to Calgary.

Findings indicate that integration is best defined as a multiple concept which can refer to more than one type of educational arrangement. The research literature does not come to definite conclusions concerning the effects of integration. However, respondents interviewed in Calgary were consistent in their views that integration is generally desirable if the student has been appropriately placed and if adequate resource support is provided. Teachers and principals generally do not support the integration of students with severe handicapping conditions. The Calgary Board of Education does in fact support considerable amounts of integration activity at all levels of an adapted Cascade system. This activity cannot be said to have reached the status of a coherent program, since statements of philosophy, goals and guidelines have not been fully developed.

Recommendations are addressed to the need to rationalize and plan for support of the mildly and moderately handicapped children presently located in regular classrooms. Integration of children with severe handicapping conditions is recommended only on the basis of careful assessment of each individual case. The need for the continuing existence of some segregated facilities is recognized. It is suggested that the Board experiment with prototype models of resource delivery to several integrated schools in the next two years. The use of prototype models is recommended to allow time for assessment and on-going planning as systems are still being developed.

Members of the Study Steering Committee

Mr. G.L. Fowler, Chairman
Superintendent of Instructional Services
Calgary Board of Education
Education Centre Building, 515 Macleod Trail SE
Calgary, Alberta T2G 2L9

Mrs. I.C. Martini, Trustee
Calgary Board of Education
Education Centre Building, 515 Macleod Trail SE
Calgary, Alberta T2G 2L9

Mrs. D.B. Corbett, Principal
Albert Park Elementary School
1317 - 27 Street SE
Calgary, Alberta T2A 0Y2

Dr. C. Rhodes, Education Consultant
Planning and Research Branch
Alberta Education
Devonian Building, 11160 Jasper Avenue
Edmonton, Alberta T5K 0L2

Mrs. M. Richardson, Chairman
Society for the Hearing Impaired
4235 - 53 Street NW
Calgary, Alberta

Dr. C.H. Sangster
Associate Superintendent of Student Services
Calgary Board of Education
Education Centre Building, 515 Macleod Trail SE
Calgary, Alberta T2G 2L9

Members of the Research Staff

Principal Investigator

Dr. G.B. Jones, Vice-President
Canadian Institute for Research

Project Management

Dr. W.R. Unruh, President
Canadian Institute for Research

Dr. M.H. Nygaard, Vice-President and General Manager
Canadian Institute for Research

Ms. J.E. O'Connell, Senior Research Associate
Canadian Institute for Research

Ms. R.H. Driscoll, Senior Research Associate
Canadian Institute for Research

Special Project Consultants

Dr. P. Dahl, Associate Research Scientist
American Institute for Research
Palo Alto, California

Dr. G. Loken, Associate Professor
Department of Educational Administration
University of Calgary

Members of the Special Education Advisory Panel

Dr. G. Kysela, Associate Professor
Department of Education Psychology
University of Alberta

Dr. J. McLeod, Director
Institute of Child Guidance and Development
Department of Special Education
University of Saskatchewan

Dr. J.V. Van Tighem, Chief Superintendent (retired)
Catholic School Centre
Calgary, Alberta

Acknowledgements

The staff of the Canadian Institute for Research acknowledges with appreciation the contributions of the following persons and groups of persons:

The members of the study Steering Committee, Mr. Fowler, Mrs. Martini, Mrs. Corbett, Dr. Rhodes, Mrs. Richardson, and Dr. Sangster. The Committee met every four to six weeks during the life of the study. Discussion with the Committee was instrumental in establishing and maintaining direction of the study. Particular appreciation is expressed to the Committee Chairman and Project Monitor, Mr. G. Fowler, for his continuing support.

The members of the Special Education Advisory Panel, Dr. Kysela, Dr. McLeod and Dr. Van Tighem. Their contributions during formulation of the conclusions and recommendations for the study were most helpful.

Dr. G. Loken, who constructed the cost estimates for the recommendations contained in this final report.

The interviewers and research assistants, Ms. R. van Raamsdonk, Ms. S. Babwi, Mrs. D. Sandercock, Mrs. B. Spear, Mr. M. McLeod, and Ms. E. Hogg, who were present at different stages of the study.

The teachers and principals of the Calgary Board of Education. Without their cooperation, this study would not have been possible.

Other Reports

There are two major appendices to this report, each bound in the Complete Report.

Appendix A: COSTING PROGRAMS IN SPECIAL EDUCATION is a discussion of a proposed methodology to estimate costs of implementation of the recommendations contained in this Final Report. The cost paper was prepared by Dr. G. Loken of the University of Calgary.

Appendix B: SUPPORTING REPORTS, BY DATA SOURCE provides complete reporting of all the data compiled for the study. The study was comprised of a number of data-collection exercises from several different information sources. The results of each data-collection exercise are summarized in this Final Report. Full reporting of methods and results is available in Appendix B, under the following titles:

Report #1 : Literature Review Calgary Populations
Report #2 : Statistical Data; Extent
Report #3 : Knowledgeable Residents; Definitions; Extent, Impact, Resources
Report #4 : Regular Schools; Extent, Resources
Report #5 : Principals; Extent, Impact, Resources
Report #6 : Regular Teachers; Extent, Impact, Resources
Report #7 : Special Education Teachers; Extent, Impact, Resources
Report #8 : Students, General Population; Special Learning Needs
Report #9 : Handicapped Students and Their Parents; Impact Non-Calgary Populations
Report #10: School Systems; Definitions, Extent, Impact, Resources

Copies of the Complete Report which include the Final Report and Appendix A and Appendix B are available for review from the offices of the Calgary Board of Education, or from the Canadian Institute for Research. Copies of the Complete Report may be borrowed from the following libraries: Canadian universities, ASTA, ATA, CASS, AFHSA, and Regional Offices of Alberta Education. Hard copy or microfiche may be purchased from the ERIC Document Service.

Table of Contents

Page

Abstract i
Members of the Study Steering Committee ii
Members of the Research Staff iii
Acknowledgements iv
Other Reports v
Disclaimer viii

INTRODUCTION 1

Organization of this Report 1

TERMS OF REFERENCE 3

METHODS 6

Definitions 6
Research Procedures 6

RESULTS 11

A. Summary of the Literature Review 11
B. Summary of Investigation of Integration in Non-Calgary School Systems 14
C. Summary of Interviews with Knowledgeable Local Representatives 17
D. Summary of Local Statistical and Descriptive Data 19
E. Summary of Data Collected from Regular Schools 23
F. Summary of Results from Behaviour Checklist Completed by Selected Teachers 27
G. Summary of Interview Data from Principals 29
H. Summary of Interview Data from Regular Teachers . . . 33
I. Summary of Interview Data from Special Education Teachers 37
J. Summary of Interview Data from Handicapped Students and Their Parents 41

CONCLUSIONS, COMMENDATIONS AND RECOMMENDATIONS 44

A. Need for Board Leadership and Development 46
B. Need for Individualized Planning for Integrated Students 50
C. Need for a Longitudinal Impact Study 54
D. Need for Demonstration Schools 56

Table of Contents Continued

Page

E. Need for Improved Strategy in all Schools with Integrated Handicapped Students 62
F. Need for Continued Board Support of Special Education Services, and of Integrated Education . 65

Attachment A
Summary: A Study of the Integration of Handicapped Students in the Regular Schools of the Calgary Board of Education 68

The members of the research staff consulted frequently with the study Steering Committee throughout the life of the project. A Special Education Advisory Panel was created to advise during the preparation of conclusions, commendations and recommendations. However, responsibility and ownership for the recommendations in the final report belong solely with the Canadian Institute for Research. No endorsement of the recommendations, by either the Steering Committee or the Special Education Advisory Panel, should be assumed.

INTRODUCTION

In January of 1977, the Calgary Board of Education issued a Request for Proposal through the office of the Chief Superintendent. Proposals were requested for a study to forward recommendations concerning desired levels of integration of handicapped children within regular school environments, and to provide cost estimates for the recommendations. The Canadian Institute for Research was selected to contract for the study. The Contract was signed in June 1977, and the final report was delivered on May 30, 1978.

The study design called for a variety of data-collection procedures. The literature was reviewed to provide background on the factors involved in integration and its effects. Other Canadian school systems were surveyed for assessment of their level of activity with respect to integration. Calgary teachers, principals and parents were interviewed for opinions on effects of present levels of integration, and for opinions concerning desired levels of integration. Records from the administrative offices of the Board were examined for statistical description of present integration levels.

Field work began in October of 1977, and was continued at intervals into April of 1978. Draft reports of findings were released to the Special Education Advisory Panel prior to the writing of this final report. Conclusions and recommendations were formulated in the light of the best possible synthesis of all findings.

Organization of this Report. Complete report of study methods and findings is provided in a series of ten supporting reports, printed under separate cover. This final report contains summary statements of findings, together with discussion of conclusions and recommendations.

There are five sections following this introductory chapter.

TERMS OF REFERENCE provides, in more detail, the specifications which guided the study design. The set of research questions contained in the Request for Proposal is provided.

METHODS provides design and sample description for each data-collection procedure.

RESULTS provides summary statements of findings from each of the ten different data sources.

CONCLUSIONS, COMMENDATIONS AND RECOMMENDATIONS provides final conclusions and discussion, together with listing of recommendations which are advanced for consideration by the Calgary Board of Education. Achievements of the Board are noted under the form of commendations.

TERMS OF REFERENCE

The Request for Proposal calling for this study summarized clearly the context within which the study had been commissioned. In the year preceding the decision to proceed with a study, an exchange of briefs had taken place between the Board and various local associations. The exchange of briefs was initiated by one association which had been constituted for the purpose of lobbying for increased school integration for the handicapped. This association presented the Board with a series of recommendations which, if implemented, would have had the effects of increasing the extent of integration, modifying assessment practice, introducing partial lay control of school placement, and modifying methods of coordinating ancillary services. A paper prepared in rejoinder by the Board administration asserted that the Board did already provide considerable amounts of service for the handicapped, and that the recommendations were therefore not supported. Further briefs from several associations spoke on several sides of the issue.

Subsequent to this exchange of briefs, the Board moved that the administration be requested "to undertake studies on the possible effects of integration of handicapped students in the regular school programs with the prospect of increasing integration and that the report include specifics with respect to cost implications..." The present study is a response to the above motion.

The specific concerns of the study were outlined in a set of research questions listed in the Request for Proposal. The questions have been copies below.

> *The purpose of this study is to determine:*
>
> *1. What would be the following costs to the system if integration were fully implemented?*
>
> > *a) Costs of facility changes in many or all schools should be investigated.*
> >
> > *b) Costs of additional support personnel should be considered.*
> >
> > *c) Costs of additional equipment should be investigated.*
> >
> > *d) Costs of in-service training for regular classroom teachers should be considered.*
> >
> > *e) Costs of additional transportation for severely handicapped children should be considered.*

2. *What impact would integration have on:*

   a) The normal child in the classroom with handicapped children present.

   b) The handicapped child in the regular classroom.

   c) The community acceptance of such a program.

   d) The effect on the teacher and class size.

   e) The cost of making necessary renovations and alterations to existing school facilities to accommodate the inclusion of handicapped children.

3. *What does a fairly comprehensive review of the literature with respect to integration indicate?*

4. *The extent to which integration of handicapped children has been implemented in the Calgary Public School System and any changes which should be instituted.*

5. *A review of other school systems of relative size in Canada and the extent to which they have undertaken integration of handicapped children in the regular classroom and the results of such integration.*

The briefs, and the paper prepared in rejoinder by the Board administration, were used in the early design stages to help define and delimit the operational content of the study. The briefs were scanned for mention of pertinent issues and concerns. Areas of concern mentioned in the briefs included: need for a comprehensive plan for integration in the Calgary system; desirability of increasing current integration activity at all levels; need for additional teacher resource supports; request for evaluation of the assessment procedures, with particular reference to use of labels and extent of emphasis on use of intelligence measures; request for evaluation of present placement procedures; and need for in-service training for teachers and principals.

References

1. Brief to Calgary Board of Education. "Re: Integration of Handicapped Children Into the Regular School System." Prepared by: Association for the Integration of Handicapped Children. Calgary, Alberta. April 1976.

2. Calgary Board of Education. "A Report of the Integration of Handicapped Children in Calgary Public Schools." Prepared by: Division of Special Educational Services and the Division of Instruction, Calgary Board of Education, Calgary, Alberta. September 28, 1976.

3. "Response To A Report on the Integration of Handicapped Children in Calgary Public Schools by the Division of Special Educational Services and the Division of Instruction." Prepared by: Association for the Integration of Handicapped Children. Calgary, Alberta. November 23, 1976.

4. Request for Proposal "The Calgary Board of Education is requesting proposals for a comprehensive study dealing with the integration of the handicapped students into the regular classes of the Calgary Board of Education." Calgary Board of Education, Calgary, Alberta. March 3, 1977.

METHODS

Definitions. The Request for Proposal questions listed in the previous section do not define the key terms "handicapped" and "integration." Nor do the terms find common understanding in everyday speech, as will be discussed subsequently in this report. The definition of "handicapped" adopted for this study is one based on the educational requirements of the student. Severity of handicap was classified according to the preferred educational placement for the student. "Integration" was defined by a very broad definition which was expected to cover any form of arrangement where a handicapped child was placed in some relationship with non-handicapped students. The following definitions were used in many contexts throughout the study:

> *Handicapped Student: A handicapped student is one who deviates from the average or normal child in a mental, physical, or social way to the extent that he or she requires a modification in regular school practices, (that is, special education services), in order to develop to his/her maximum capacity.*
>
> *Mild Handicapping Conditions: are ones that enable students to work well in regular classes full-time without special assistance or with occasional, limited supportive services and supplementary instructional assistance.*
>
> *Moderate Handicapping Conditions: are those that usually require students to participate less than full-time in regular classes because they need the assistance available in special classes, resource rooms, or instructional stations part-time or full-time.*
>
> *Severe Handicapping Conditions: are ones that usually require full-time and extensive special assistance in home, hospital, residential, or other total care setting.*
>
> *Integration: refers to the education of handicapped students in regular schools of the Calgary Board of Education.*

Research Procedures. The specific research procedures are described below, according to the research questions which each was designed to address.

Request for Proposal Question #1: What would be the following costs to the system if integration were fully implemented?

a) Costs of facility changes in many or all schools should be investigated.

b) Costs of additional support personnel should be considered.

c) Costs of additional equipment should be investigated.

d) Costs of in-service training for regular classroom teachers should be considered.

e) Costs of additional transportation for severely handicapped children should be considered.

Complete information on costing procedures is presented in a separately bound report. Briefly, operational budgets were used to derive unit costs for the various components attached to integration activity. Total costs can be calculated on the basis of aggregated unit costs. Where it was desirable, indices were proposed to relate the costs of integrated programs to the costs of regular programs. Estimates were presented in such a way that they can readily be modified if more current or relevant data becomes available.

Request for Proposal Question #2: What impact would integration have on:

a) The normal child in the classroom with handicapped children present.

b) The handicapped child in the regular classroom.

c) The community acceptance of such a program.

d) The effect on the teacher and class size.

e) The cost of making necessary renovations and alterations to existing school facilities to accommodate the inclusion of handicapped children.

Impact of integration was addressed in six of the ten data procedures.

The literature was reviewed for research evidence of impact (see description below under Question #3).

Representatives from five other Canadian school systems were asked for opinions concerning impact of integration in their cities (see description below under Question #5).

Impact in Calgary was investigated through interviews with representatives of four populations: principals of schools with handicapped students; regular teachers with handicapped students in their classes; teachers of special education classes; and parents of handicapped students. Some students were interviewed as well. All respondents were interviewed personally, using semi-structured instruments. Teachers were also asked to complete a closed rating scale to indicate effectiveness of current class placement for their handicapped students.

Principals and teachers were selected from among schools which were known to have handicapped pupils. The list of schools was constructed from two sources:

a) Principals from a random sample of Calgary public schools had previously been asked to list numbers of handicapped students in their schools (see description under Question #4). Those schools which reported having either moderately or severely handicapped pupils were put on a list for the impact study. Twenty-three of an original group of 29 responding schools fell into this category.

b) Any regular schools with special education classes were added to the list. These schools numbered an additional 28.

From the total of 51 schools, a random sample of 25 was selected. In each school, the principal, one special education teacher and one regular teacher with handicapped pupils were interviewed. Where more than one teacher was eligible for interview, the principal was assisted to make a random selection. On occasion, scheduling availability had the effect of making a random choice. The original sample size was increased slightly to account for low representation of some types of schools, and the final numbers of interviews conducted were 27 with principals, 28 with regular teachers and 25 with special education teachers.

Parents of handicapped students were selected at random from lists of names of students registered in a special education program. These students had all been officially assessed and defined as "handicapped" by the Special Education department. Where it was feasible, the student was interviewed as well. In some instances, the parents refused permission for the student to be interviewed. In several other cases, interviews were conducted but little useful information resulted due to the low verbal capacity of the student. In total, 33 sets of parents (father, mother or both) were interviewed.

All the information gathered for the impact study was based on personal opinion and observation. Validity of the information was assessed through checking the consistency of reports from the different data sources.

Request for Proposal Question #3: What does a fairly comprehensive view of the literature with respect to integration indicate?

The literature review was focussed on both local documents and standard academic sources of research material. Over 400 abstracts were surveyed to produce a list of 96 documents which were reviewed in detail.

Results of the literature review are reported according to nine headings: impact; definitions of integration; desired level of integration; current levels of integration in other school systems; indicators and measures of extent of integration; definitions of handicapped; teacher and resources and supports; structural/architectural/equipment requirements; evaluation instruments used to assess integration programs.

Request for Proposal Question #4: The extent to which integration of handicapped children has been implemented in the Calgary Public School System and any changes which should be instituted.

Extent of integration was assessed in a preliminary descriptive sense through a series of interviews with selected members of the educational and other communities in Calgary. Respondents were selected on the basis of their personal experience either with integrated education or with handicapped persons. These interviews served a double purpose: to provide initial description of integration, and to provide definitions of topics which should be addressed in later stages of the study.

Extent of integration was assessed in a statistical sense from secondary data obtained from the Central Offices of Board administration. Statistical information on numbers of students in special education programs, on numbers of specialized staff, and on distribution of special classes was obtained and analysed in a form suitable for study objectives.

Further specification of extent of integration was obtained by going directly to the schools. A stratified random sample of regular schools was selected, with the three levels of elementary, junior high and senior high represented. Numbers of schools in each level of the sample were 21 elementary, 7 junior high and 3 senior high. These numbers are 18%-20% of the totals in their respective strata. Two sets of research procedures were carried out in each of these schools:

a) Each principal was asked to complete a lengthy form describing various operational aspects related to the presence of handicapped students in the school. An accurate count of numbers of handicapped pupils was requested, followed by sections dealing with amount of time spent in integrated activity; pupil/teacher ratio; special resource personnel; training and planning for integration; and special materials and architectural modifications. Thirty of the 31 schools responded to the questionnaire, with one principal refusing to respond. One additional school returned the form too late to be included in the analysis. Results are presented for 29 of the random sample of 31 schools, or 94% of the sample.

b) All teachers in each of the sample schools were asked to complete a form in which they provided ratings on each of their students. Ratings took the form of a dichotomous, presence-or-absence indication of a large number of behavioural characteristics assumed to be representative of handicapping conditions. The ratings were obtained in an attempt to construct estimates of numbers of students who evidence learning problems as observed by their teachers. Estimates would be used to determine the approximate number of students who are fully integrated, but working under conditions of a mild handicapping condition. About 66% of the eligible students were rated, which is equivalent to 11% of the student population in Calgary.

Extent of integration was also discussed during the impact interviews with principals, regular teachers and special education teachers (see discussion under Question #2). Principals and teachers were asked for anecdotal reports of ways in which integration was organized, whether special arrangements were made, what changes had resulted in normal classroom routine, etc.

Request for Proposal Question #5: A review of other school systems of relative size in Canada and the extent to which they have undertaken integration of handicapped children in the regular classroom and the results of such integration.

Population statistics and numbers of enrolled pupils were used to construct a list of metropolitan school systems in Canada similar in size to the Calgary Board of Education. The study's Steering Committee selected five systems who were subsequently contacted for study. The systems studied were Vancouver School District No. 39, Edmonton Public Schools, The Board of Education for the Regina Public School District No. 4, The Board of Education for the Borough of North York and the Protestant School Board of Greater Montreal.

Information was retrieved by telephone interview with the system's Director of Student Services or the equivalent. Topics covered were: definition of handicapped students; definition of integration; form of integrated programs; advantages and disadvantages of integration; rationale for integration; indicators and measurement of integration; staff training; special materials/equipment/facilities.

RESULTS

A. Summary of the Literature Review

What does a fairly comprehensive review of the literature with respect to integration indicate?

Ninety-six (96) documents were reviewed in detail during the review of research literature. Complete reporting is found in supporting Report #1: Literature Review.

Impact on Handicapped Students

1. Research on the short term effects of integration does not demonstrate the absolute superiority of any one form of educational placement for the handicapped. Results are variable, depending on the measures used and depending on circumstances which may be outside the control of the researcher. However, some trends are strong enough to be reported:

a) There is virtually no evidence to support segregation as a method for improving cognitive achievement of educably mentally handicapped (EMH) children. The weight of the findings suggests that either integration is advisable, or that the locus of instruction is less important than the quality and format of instruction provided.

b) Some form of segregation is favoured for cognitive achievement of learning disabled children.

c) Results concerning development of self-concept in educably mentally handicapped children are mixed, with some support for the integrated setting. Some support for the segregated setting can be found in studies which looked at the social development of educable students.

d) There is evidence of continued negative findings concerning the social acceptability of integrated special class students. Acceptance by their non-handicapped classmates may be a continuing problem.

e) There is little research dealing with integration of the sensory impaired.

2. There is virtually no evidence concerning the long-term effects of integration. The studies which have been done are too few in number of have any collective weight.

Definition of Integration

3. "Integration" is defined partially in terms of physical placement of the handicapped student. All definitions have a general meaning of movement of the handicapped away from specialized instructional settings towards the typical educational patterns of non-handicapped society. Within this general meaning, definitions vary according to the level of integration envisaged. Levels could include placement of special classes in a regular school, placement of special class children into regular classrooms, etc.

4. Most definitions of integration include a dimension of "belonging" which goes beyond mere physical placement. To be truly and functionally integrated, a student must be physically, socially and emotionally a part of the setting. "Integration," by its very nature, includes the provision of whatever resources are necessary to bring the student into a functioning position with his/her group.

Models of Integration

5. Several different models for provision of integrated educational service to the handicapped have been designed. The most comprehensive model is the Cascade system developed by Deno. Other models specify different forms of resource room and/or itinerant support.

6. Models are all based on the principle that primary responsibility for the educational programming of the student should remain with the regular classroom teacher wherever possible.

Integration in Other School Systems

7. There is consensus of opinion that integration is occurring at an increasing rate in Canada and the United States. Few statistical data are available to quantify this statement.

Indicators and Measures of Integration Extent

8. There is no consensus in the literature regarding appropriate and feasible indicators to measure the extent of integration. Various presentations of population statistics, record of time spent in various instructional settings, models reflecting student characteristics, and cost of programs have all been forwarded as tentative possibilities.

Definition of Handicap

9. "Handicap" has traditionally been defined according to a causal, medical set of ideas, whereby handicapped individuals are classified according to the dysfunction which has caused the problem. The applicability of medical disability labels to educational settings has been criticized in recent years. Medical categories are held to be of limited use in prescribing educational programs. Further, they may cause inappropriate groupings of students, they carry expectations of low achievement levels, stigma is attached to them, and diagnosis is not always accurate.

10. More recent trends define "handicapped" according to educational deficit or learning requirement of the student. Such definitions necessarily include description of guidelines for educational programming. Educationally-based definitions of handicap are not yet developed to the point where consensus among school systems or curriculum planners has been achieved. Various tentative classification schemes have been reported in the literature.

Resource Support For Teachers

11. There is universal agreement that integration will generally have detrimental effects unless certain supports are provided to teachers. Required supports fall into four categories:

a) pre-service and in-service training;

b) support personnel such as consultants and specialized teaching resources;

c) adjustment of teaching loads;

d) additional materials and equipment

Structural/Architectural/Equipment Requirements

12. Literature on building requirements for facilities suitable for use by the physically handicapped is well-developed. Most new buildings can be built with necessary conveniences at an estimated increase in cost of less than one per cent. One study estimates that present facilities can be made accessible to the physically handicapped at an estimated conversion cost of less than five cents per square foot.

Evaluation Instruments

13. The lack of appropriate instruments for measuring effects of integration is a chronic problem in the research.

14. Few studies have been designed and/or reported which used comprehensive batteries of tests and measures.

B. Summary of Investigation of Integration in Non-Calgary School Systems

What does a review of other school systems of relative size in Canada reveal about the extent to which they have undertaken integration of handicapped children in the regular classrooms and the results of such integration?

The results apply to the study of five (5) Canadian school systems similar in size to the Calgary Public School System. For complete results, refer to supporting Report #10: School Systems.

Nature and Extent of Integration

1. All five systems provide for both segregated and integrated instructional placement for handicapped students. As in Calgary, decisions about placement of any individual child are made on a case-by-case basis.

2. All systems provide for at least some resource systems similar to those in Calgary. There are special classes for the educably mentally handicapped in all systems; some form of tutorial/resource room assistance for children with learning problems; either integrated or segregated learning experiences for the sensory impaired, depending on the severity of the handicap; transitional classes for the trainable mentally handicapped in at least one system. Some cities have the equivalent of a Learning Assistance Centre and others do not. In one system, learning disabled students are assisted by itinerant teachers, and in-school tutors are provided in another. Only one service was mentioned which is not provided in some form in Calgary; this was a segregated, off-campus program for high school students who are experiencing psychological difficulties in adapting to the regular schools.

3. One system routinely aggregates statistical information on numbers of integrated handicapped pupils, where "handicapped" is defined by the criteria specified by grant regulations of the province in question. This system defines "integration" in terms of percentage of time spent with regular students. One system could potentially aggregate statistics on numbers of integrated students but does not normally do so. This system defines "integration" in terms of a change in placement status. Three systems maintain statistics on numbers of students in various programs, but do not maintain statistics on numbers of integrated students.

4. Estimates of the numbers of schools with integrated eligible students ranged from "more than 75%" for two systems to "less than 25%" for one system.

5. Statistics on numbers of resource staff, on numbers of special classes and on numbers of students in the various programs were available for only one of the five systems.

6. The Calgary Board of Education provides at least as full a range of programs as any of the five other systems. Comparisons of amount of service provided within these programs cannot be made.

School Board Policy

7. One of the five systems works under a formal statement of Board policy on integration.

Resources to Support Integration

8. The major considerations involved in designing a successful integration program are listed with consistency from one system to another. The major considerations are: regular teacher preparation training and time availability; provision of some form of adequate specialized instruction for the student; increased cost; and peer and teacher acceptance of handicapped students.

9. All five systems report a variety of uses of materials, equipment and forms of training. These are all provided on an ad hoc basis as resources permit. No system has developed comprehensive plans for total school provision of any of these resources.

10. The major problem encountered in integration attempts has been inadequate skills and attitudes on the part of the regular teacher. The differentiation of role responsibilities between the regular and the special education teacher was mentioned as a severe problem in at least one system.

Evaluation of Integration

11. No system has developed evaluation instruments or collected evaluation data to assess its integration activity.

Cost Data

12. No system has developed accounting procedures to allow it to aggregate costs of integration activity. One system has an accounting procedure which would allow easy calculation of such costs if required.

Effects on Handicapped Students

13. Respondents generally assert that integration has had favourable outcomes. Two respondents estimated that 50%-75% of

integrated pupils have benefitted; three respondents estimated that more than 75% of pupils have benefitted.

14. Respondents are agreed that effects of integration are variable, depending on individual circumstance, and that integrated placements must be made with care.

Desired Levels of Integration

15. Respondents could not comment on desired levels of integration, as any system directions must be mandated by their respective school boards.

16. All respondents are of the opinion that integration does often benefit students, particularly in a social sense. They note, however, that academic gains are often apparent in the segregated special settings. An adequate integration program will be one which will retain the gains from both settings.

C. Summary of Interviews with Knowledgeable Local Representatives

What are the opinions of educators and representatives of the community about the integration of handicapped children in the regular schools of the Calgary Board of Education?

Twenty-six (26) interviews were conducted with various members of central Board administration, teaching staff and concerned community representatives. Results of these interviews did not form a primary data source for the study. The purpose of the interviews was to assist in clarifying the nature of the integration problem, and to identify topics for inclusion in later stages of the study. Complete results are presented in supporting Report #3: Knowledgeable Residents.

Major Concerns About Integration

Respondents identified eleven sets of concerns related to integrating handicapped students into regular classrooms:

a) the possible need to redefine allocation, control and extent of financial grants to integrated schools; specifically, the need to consider the possibility of a decentralized budget;

b) the fear that the Board will try to save money by cutting back on special education services and educating all but the most severely handicapped in regular classes;

c) the need for appropriate selection, training and support of teaching staff in integrated schools;

d) the need for careful selection and preparation of schools suitable for integration programs;

e) the need for adjustments to pupil/teacher ratio and release time for preparation;

f) the possibility of negative attitudes towards integration from parents of non-handicapped children;

g) the need to establish links of communication and coordination among special personnel, regular teachers and parents;

h) the need to establish criteria for placement of individual handicapped children;

i) the possibility that the curriculum of the regular classroom may not be suitable for handicapped students;

j) problems of social acceptance of handicapped children;

k) the fear that political pressure could force the implementation of an inadequately planned integrated system.

D. Summary of Local Statistical and Descriptive Data

To what extent has integration of handicapped children been implemented in the Calgary public school system?

Statistical records available from central administrative offices were analysed and reported in a form suitable to study objectives. For complete presentation, see supporting Report #2: Statistical Data.

Models of Integration

1. The Calgary Board of Education uses an adapted Cascade model for the placement of handicapped children.

A paper entitled "Programs-Integration" issued by the Special Education Department of the Calgary Board of Education in January 1978 lists the following Cascade levels presently being used in the Calgary system:

Level I: Children in regular classes: handicapped but able to get along with regular class accommodation -- supported by visiting teachers, counselling, speech therapy.

Level II: Regular class attendance plus supplementary instructional services -- supported by Learning Assistance Centre, visiting teachers, follow-up, itinerant teachers, speech therapy.

Level III: Part-time special classes, gradually increasing integration with regular classes -- includes all special class pupils except the severely disturbed and trainable retarded.

Level IV: Full-time special classes -- severely disturbed and trainable retarded.

Level V: Special Stations -- in a variety of special education settings, multiple handicapped.

Level VI: Homebound -- Teachers of home-confined.

Level VII: A. Instruction in residential centre
B. "Non-educational" service, e.g. hospital wards, detention homes.

2. The Board administration has prepared at least one paper with position statements of goals and objectives for integration. Statements of philosophical rationale have not been fully developed. No current statement relating goals and objectives to operational procedures is available.

The January 1978 paper mentioned above provides description of current integration programs in Calgary, together with information describing characteristics of various handicaps. Statements of rationale, goals and objectives are not developed in this paper. A previous paper entitled "A Report of the Integration of Handicapped Children in Calgary Public Schools" was issued by the administration in September of 1976. It asserts the following positions relative to integration:

a) The Board accepts Deno's Cascade principle of educating "most" handicapped children in the regular classroom according to their learning needs.

b) Special class students will be integrated back into a regular classroom whenever feasible.

c) Placement for any handicapped child should be determined through analysis of intellectual, emotional and social competence.

d) Special classes will be retained for students who either cannot learn in the regular setting, or whose presence interferes with the learning of other students.

e) Specific handicap labels will be used, although with caution and flexibility.

f) Additional training for regular teachers is very important to successful integration.

Numbers of Resource Personnel

3. The Board employs psychologists to perform student assessments related to declaring a need for special services. There are 16.9 full-time equivalent positions for psychologists, or one for every 5,000 pupils.

4. The Board employs Visiting Teachers, Speech Pathologists, Guidance Counsellors and Remedial Clinicians and Tutors to provide support at Levels I and II of the adapted Cascade model. The remedial clinicians and tutors work within Learning Assistance Centres.

There are 32 visiting teachers, or one for every 1,500 elementary pupils.

There are 15.6 full-time equivalent positions for speech pathologists, or one for every 3,000 elementary pupils.

There are 100 full-time equivalent positions for guidance counsellors at the junior and senior high levels, or one for every 400 secondary students.

There are seven Learning Assistance Centres in the city with a total of 30.5 remedial clinicians and tutors, or one for every 2,000 elementary and junior high pupils.

5. The Board employs itinerant teachers for support to fully integrated hearing and vision impaired children at Level V of the adapted Cascade model.

There are 6.5 full-time equivalent positions for itinerant teachers for 72 integrated students, or one teacher for 12 pupils.

The local Children's Hospital also maintains a mobile multidisciplinary team in support of a small group of cerebral palsied children integrated in the early elementary grades. This activity is classified at Level V.

Numbers of Special Classes

6. There are 134 special classes in the city, comprising Levels III, IV, VI and VII of the adapted Cascade model.

Seventy-one (71) of the classes are in regular schools, comprising Level III of the model.

Sixty-one (61) are within segregated institutions, comprising Level IV and Level VII of the model.

Two (2) of the classes are for the home-confined, comprising Level VI of the model.

7. The classes in the regular schools are categorized as providing for students who are diagnosed as: Educable Mentally Handicapped (44 classes); Sensory Handicapped (hearing and vision impaired; 11 classes); Learning Disabled (9 classes); Trainable Mentally Handicapped (7 classes).

8. The classes in the segregated institutions are categorized as providing for students who are: Hospital, Institutional (4 institutions; 24 classes); Learning Disabilities (one institution; 11 classes); Trainable Mentally Handicapped (two institutions; 26 classes).

Numbers of Special Education Pupils

9. Total enrollment in special classes as of May 1978 was 1,270 pupils. This figure includes the 72 fully integrated vision impaired students. The 1,270 pupils represent about 1.5% of the total school population.

10. There are approximately 550 spaces available in the Learning Assistance Centres, given present methods of organization. This total represents spaces sufficient for 0.8% to 0.9% of the elementary and junior high student population.

Location of Services Within Grade Levels

11. The Visiting Teacher and the Speech Pathologist are assigned mainly to elementary grade levels. Psychologists work at all grade levels. Guidance Counsellors are assigned to secondary schools. The Learning Assistance Centres are for the use of elementary and junior high students.

12. Of the total number of special classes, about two-thirds are located within the elementary levels. The remaining one-third are at the secondary level.

Transportation

13. Five charter bus routes are maintained to transport special class students. Almost all students from the two schools for the trainable mentally handicapped, the school for the learning disabled and the hospital school are transported by school bus. About half of the sensory impaired students are transported by school bus.

14. Of the students in Educable Mentally Handicapped special classes in regular schools, the majority (around 60%) use public transportation. Only a small number (about 20%) walk to school.

E. Summary of Data Collected from Regular Schools

To what extent has integration of handicapped children been implemented in the Calgary Public School System, and what changes should be instituted?

Principals in a random sample of regular schools were asked to complete a lengthy questionnaire describing various operational aspects related to the presence of handicapped students in the school. Results were obtained from 29 schools of an original sample of 31. Complete reporting is presented in supporting Report #4: Regular Schools.

Numbers of Handicapped Students

1. All schools in a random sample of 29 Calgary public regular schools have at least some handicapped pupils.

2. As indicated in the following table, slightly less than one-half (13 or 45%) of the schools have at least some pupils with all of mild, moderate and severe handicapping conditions (Definitions of these terms are provided on page 6, in the METHODS section).

Level of Handicapping Condition	Number of Schools	
Mild only	9	(31%)
Mild and Moderate	5	(17%)
Mild and Moderate and Severe	13	(45%)
Moderate only	1	(3%)
Severe only	1	(3%)
TOTAL	29	(100%)

3. The sample schools varied in the numbers of students reported as having handicapping conditions. The table on the following page shows numbers of schools at the different grade levels with various numbers of handicapped students. Three observations are noted in connection with the table:

a) Reported numbers of handicapped students showed the greatest variation at the junior and senior high levels.

b) The difference in numbers between schools is only partially explained by the size of the school. Definitional considerations and real differences in proportion of students who are handicapped contribute to variation between schools.

c) The numbers in the table in fact represent handicaps. A student may be counted more than once in the data. The numbers are high estimates of numbers of handicapped students. However, the instances of multiple handicap which are present are not numerous. Numbers of handicapped students are probably no more than two or three percentage points lower than those shown in the table.

No. of Handicapped Students	School Level		
	Elementary	Junior High	Senior High
10 or less	4	1	1
11 - 49	10	2	-
50 or more	6	3	2
TOTAL	20	6	3
Minimum	1	1	4
Maximum	114	410	735
Average	41	116	291

4. The number of reported handicaps as a percentage of the total enrollment of students is 13%, 26% and 19% for the elementary, junior high and senior high levels respectively. The junior high and senior high figures are inflated by the presence of unusually large numbers from two of the schools.

5. Less than half (39%) of the handicaps have been assessed by Student Services. The remainder (61%) have been assessed by procedures developed by the individual schools. The large majority of the handicaps which have not been assessed by Student Services are located in the secondary levels.

6. The large majority of the handicaps (69%) are defined as mild handicapping conditions, while 26% are defined as moderate conditions, and 4% are defined as severe.

Segregated Activity

7. The majority (65%) of the sample schools reported no segregation, other than sending a student out to a Learning Assistance Centre or English as a Second Language Classes. Reported instances of segregation involved special class students who are segregated from academic activity, and physically handicapped students who are segregated from physical education.

Pupil/Teacher Ratios

8. Pupil/teacher ratios reported by the schools ranged from 20/1 to 32/1.

Special Personnel

9. The special resource personnel used most frequently at the elementary levels are the Visiting Teacher (100% of the schools), the School Psychologist (80% of the schools), the Speech Pathologist (80% of the schools) and the Public Health Nurse (80% of the schools). Principals were asked to rate the adequacy of service provided by these personnel. Each service was rated as adequate by one-half or fewer of the schools. "Not enough time" was the reason most often offered to explain the inadequacy.

10. Resource room teachers at the elementary level, used by 7 schools, were generally rated as adequate. School aides and remedial clinicians at the elementary level, used by 7 and 6 schools respectively, were generally rated as inadequate. Delays, lack of time were offered as reasons.

11. Two elementary schools use volunteer adults. Both rated their services as adequate.

12. The special resource personnel most frequently used at the secondary level is the Guidance Counsellor. Service is generally rated as adequate.

Special Training

13. Half of the regular schools reported no special training to expedite integration.

14. The other half reported a variety of workshops, consultation with various experts, attendance at lectures, etc. No school reported training events deliberately designed to increase skills directly related to integration.

Special Planning

15. The large majority (76%) of schools reported no special planning for integration. Where planning did take place, it generally consisted of scheduling and case conferencing for particular students.

Special Materials/Equipment/Facilities

16. About half of the schools reported the use of special materials such as tapes, video materials and controlled readers.

Most reported these materials as adequate, except where there is a shortage of supply.

17. No regular schools in the sample reported the use of special gym, home economics or shop equipment.

18. Five schools reported some architectural modification. Six schools made use of the questionnaire to express a request for architectural modification. Three of these requests were for partitioning to provide a "time-out" or resource space.

Desired Level of Integration

19. When asked if their school had the "staff, motivation and technical resources to integrate more handicapped students than it is currently doing," more than half (65%) of the schools answered "No." The reason generally given was that teachers were already working to capacity. Those schools which did reply "Yes" all qualified their answer in some fashion (e.g., if more staff were available, depending on the nature of the handicap, etc.)

20. General comments on the prospect of increased integration dealt with four areas of concern:

a) time demands on teachers;

b) teacher expertise and preparation;

c) the general quality of education;

d) the presumed impossibility of functionally integrating the severely handicapped.

F. Summary of Results from Behaviour Checklist Completed by Selected Teachers

To what extent has integration of handicapped children been implemented in the Calgary Public School System?

In an attempt to investigate the numbers of children in Calgary classrooms with mild handicapping conditions, regular teachers in a random sample of Calgary schools were asked to complete a form called the Screening Checklist of Student Behaviours. The form asked teachers to indicate which of their students exhibited certain selected behaviours characteristic of various handicapping conditions. Observations were collected on 11% of the total student population of Calgary public schools.

The summary of findings below presents the percentages of students, at the various grade levels, who are said to exhibit the behaviour items with the highest frequencies. Complete results for all items are available in supporting Report #8: Students, General Population.

Forms of Mild Handicap

1. About 10%-15% of elementary students are said to perform below grade level in the basic skill areas. The equivalent percentages at the secondary levels are about 4%-10%. These percentages are indicative of numbers of students who cannot work, to any satisfactory level of accomplishment, with the materials normally provided for use in the grade in which they are registered.

Exact percentages for each division are provided below:

a) "Performs below grade level in reading"

Grades I-III: 14.5%
Grades IV- VI: 18.0%
Grades VII- IX: 6.5%
Grades X-XII: 6.2%

b) "Performs below grade level in spelling"

Grades I-III: 8.9%
Grades IV- VI: 16.7%
Grades VII- IX: 6.0%
Grades X-XII: 4.4%

c) "Performs below grade level in arithmetic"

Grades I-III: 7.0%
Grades IV- VI: 12.4%
Grades VII- IX: 5.9%
Grades X-XII: 3.4%

2. About 15% of elementary students are said to have concentration problems. The equivalent percentage at the secondary level is about 9%.

Exact percentages for the relevant item are shown below:

a) "Is easily distracted, lacks effort and perseverence"

Grades I-III: 14.5%
Grades IV- VI: 14.2%
Grades VII- IX: 9.4%
Grades X-XII: 7.9%

3. Other items, with lower frequencies, said to be characteristic of 4% or more of the school enrollment include the following:

"Appears to daydream frequently"

"Has difficulty organizing thought processes and/or work"

"Speaks in extremely loud or soft voice"

"Exhibits overactive, uncontrolled, impulsive behaviour"

G. Summary of Interview Data from Principals

What is the impact of integration? To what extent has integration of handicapped children been implemented in the Calgary Public School System, and what changes should be instituted?

Twenty-seven (27) principals from regular Calgary schools were interviewed. The schools had previously been identified as schools with handicapped pupils. Two-thirds of the schools had special classes located within them. Complete reporting of results is available in supporting Report #5: Principals.

Definition of Handicapped

1. Principals generally accepted the study's definition of handicapped students. They considered it a good operational definition since it made provision for the mildly handicapped student. A few principals objected to the definition on the grounds that, interpreted broadly, the definition includes the exceptionally gifted child. (The study definition of handicapped is listed on page 6 in the METHODS section).

Definition of Integration

2. Principals did not generally accept the study definition of integration. They would prefer that it read "education of students in regular classes..." Most principals felt that integration has not been achieved merely by placing a special class in a regular school. Common learning activities must be established in order to achieve true integration. (The study definition of integration is listed on page 6 in the METHODS section.)

Numbers of Handicapped Pupils

3. Principals tended to estimate that about "one or two per class" of the students are moderately handicapped, and about ten per cent of the students are mildly handicapped. The mildly handicapped were said to suffer from a wide range of emotional/cultural/behavioural/learning problems. Principals indicated concern about the growing numbers of students who seem to be falling behind in academic subjects.

Nature and Extent of Integration

4. Principals reported that special class students are almost always integrated for non-instructional activities such as concerts, assemblies and recess. Most schools integrate for physical/experience subjects such as music, art and physical education. Integration for academic subjects is rare, but is practised occasionally when it seems handicapped students are likely to benefit.

5. A handicapped student is often excluded from overnight field trips if the child's problem is such that he/she cannot care for himself/herself overnight.

6. Handicapped children who are not in special classes are generally treated just like the regular students. Modifications such as regrouping, lowering of expectations or more frequent individual assistance may be made.

7. Only four principals reported trying approaches to integration which were ineffective and had to be discontinued. Principals stated that specific integration practice has usually been considered carefully beforehand. Any activity with a high risk of failure is not attempted.

Effects on the Community

8. Most principals report no reaction from the community, either positive or negative, to the presence of handicapped students. Where there has been community reaction, it is generally the result of a specific, isolated incident.

Effects on School Administration

9. Most of the principals interviewed reported that the presence of special classes in a school creates demands on principals beyond those of a regular class. Demands result from problems either caused by or experienced by the special class students. Examples are fights on the playground, a student needing individual counselling, trouble on the school bus, case conferencing over placement decisions, etc.

Effects on Regular Teachers

10. Principals reported that teachers seem generally supportive of the presence of handicapped students in their schools, provided resources adequate to the task are provided.

Effects on the Non-Handicapped Students

11. Principals observed that the presence of handicapped students does seem to produce increased understanding and acceptance on the part of the non-handicapped students.

12. Some principals reported that the presence of handicapped students has caused no reduction in instruction time to the non-handicapped. Others reported that there has been a decrease in attention paid to the regular students. Effects in this area vary with the school.

Effects on Handicapped Students

13. Principals reported that handicapped children often seem to enjoy social benefits from integration, and that self-concept is improved. However, they caution that a situation where failure is allowed is destructive. Careful consideration must be given to all aspects of placement so that failure is not allowed to occur.

Resources to Support Integration

14. Principals reported that the key facilitators to successful integration are capable and willing teaching staff, and an acceptable pupil/teacher ratio.

15. Barriers mentioned were inexpereinced and unsympathetic teachers, attempting to integrate too quickly, and overcrowding.

16. Provision of appropriate learning materials, in-service training and teacher aide support were mentioned as important resources by principals. Architectural modification to buildings was generally rated as low priority.

Desired Levels of Integration

17. Principals generally supported the integration of handicapped students with mild and moderate conditions, provided that appropriate resource supports were provided.

18. Principals generally did not support the integration of handicapped students with severe conditions. The severely emotionally disturbed, the severely physically handicapped and children who are not toilet-continent were not seen as integratable.

19. Principals of regular schools with special classes were generally supportive of integration. Principals of regular schools which have handicapped children but no special classes tended to be apprehensive about possible negative consequences.

20. Principals generally refused to comment on whether or not the total amount of integration in Calgary schools should be increased. They stated that they were not familiar with the activities of other schools, and that they could comment only on their own schools. Some individuals stated that no attempt should be made to increase integration without determination of philosophy and goals. Others felt that determination of acceptable levels of integration revolves around provision of adequate resource support.

Opinions Concerning Current Services to the Handicapped

21. Principals unanimously reported being unaware of a statement of Board policy with respect to integration. To their knowledge, there is no written plan for implementation, no written statement of philosophy and goals, and no curriculum guidelines.

22. Principals generally supported the need for guidelines to give direction to integration activity.

23. Principals generally commended the services which the Board provided to handicapped students with severe conditions through the specialized institutions.

24. There was general support for the existence of special classes as a means of educating the moderately handicapped. A need is expressed for more special classes.

25. There was general agreement that the Board is not doing enough to meet the needs of the mildly handicapped. Students with mild learning difficulties who are presently located in regular classes are not being adequately assisted.

26. Principals were not agreed on the quality of service provided by the Special Education resource personnel. Some principals are very satisfied, while others mentioned serious understaffing and an apparent lack of concern and communication from the central offices. There was some concern that some special education services are spread so thinly that their value has been seriously compromised.

H. Summary of Interview Data from Regular Teachers

What is the impact of integration? To what extent has integration of handicapped children been implemented in the Calgary Public School System, and what changes should be instituted?

Twenty-eight (28) regular teachers were interviewed. Teachers were selected from a larger group identified by principals as teachers who were currently teaching handicapped students in their classrooms. Full reporting of results is provided in supporting Report #6: Regular Teachers.

Background of Teachers Interviewed

1. Of 28 regular teachers selected to work with handicapped students, eight had received either in-service training or university instruction in working with handicapped children.

2. The majority (68%) had more than five years of teaching experience.

3. Teachers stated that, if there was a reason for selecting them to teach handicapped students, it was that they had expressed an interest or that timetabling considerations determined the choice.

Nature and Extent of Integration

4. Most teachers reported making no major special arrangements for their handicapped students. Minor changes such as more instructional assistance, smaller projects, demanding less, etc., are common.

Assessment and Placement Procedures

5. Half the teachers stated that they were personally familiar with the assessment and placement procedures. Almost all expressed dissatisfaction. Concerns mentioned were: staff overload which means long waiting periods and some borderline children who are never referred at all; not enough openings for special placement; inconsistencies in communicating information.

Effects on Handicapped Students

6. Teachers rated the regular class as an effective placement for the great majority of handicapped students in the social and expressive areas. For some students, the regular class is felt to be inferior in capacity to teach the basic reading, writing and arithmetic academic skills.

Effects on the Non-Handicapped Students

7. Teachers reported little evidence of teasing and taunting from the non-handicapped students.

8. All teachers but three reported observing evidence of increased understanding, awareness and consideration in their non-handicapped students.

9. More than half of the teachers (60%) state that there have been no general detrimental effects on the non-handicapped students as a result of the presence of the handicapped. The exceptions to the above statement were teachers who had taught an emotionally disturbed, immature or aggressive child who became a disturbance to the class.

10. Slightly less than half (43%) of the teachers said that the presence of handicapped students had reduced the instruction time or attention paid to the non-handicapped students.

Effects on the Regular Teacher

11. Slightly more than half (57%) of the teachers found the teaching of handicapped students to be a positive experience. Reasons given generally focussed on the handicapped child's desire to succeed, his/her receptivity to being taught, and the pleasurable feelings which resulted when progress became visible.

12. A smaller number (32%) found the teaching of handicapped students to be a negative experience. Reasons given included physical fatigue, stress from having to move at an extremely slow pace, and the feeling that the non-handicapped students were being deprived of legitimate instruction time.

13. A few teachers (11%) found that teaching handicapped students was no different from teaching any other student.

14. The majority of teachers have modified their teaching methods to some extent as a result of the presence of handicapped children. Common examples were design of low-achieving curriculum, redistribution of attention time and extra assistance given to some pupils.

15. Half the teachers stated that the presence of handicapped children in their classes had helped them to identify other children with mild learning problems. Reasons given were generally that the teachers' own awareness of his/her pupils had been heightened. The remaining half of the teachers stated that this effect had not occurred.

16. The majority of teachers (71%) stated that the number of referrals from their classroom had not changed as a result of the presence of handicapped children. Reasons usually given were concerned with the lack of an adequate referral system. Mildly handicapped students are generally not referred, even if the teacher is aware of a difficulty.

Resources to Support Integration

17. The majority of teachers (69%) indicated that they were not provided with any additional resources to teach handicapped students. All but two of these stated that they did not need any additional resources.

18. Where resources were provided, they consisted of resource tutors, extra aides, smaller classes, adult volunteers and teacher aides.

19. Resources which would have been useful included more library materials, conferences, university courses and more preparation time.

20. Teachers stated that small class size, teacher and parent attitudes all contribute to successful integration.

21. Lack of information about the student, too large a class, lack of parental support and lack of teacher approval all cause difficulties for integration.

Desired Levels of Integration

22. Most teachers stated that they would not want to teach more than two to five handicapped children in a single class. The largest number selected by any teacher interviewed was one-quarter to one-fifth of the class.

23. Only two teachers replied with a clear "Yes" when asked if the amount of integration in Calgary schools should be increased. The others all provided either negative or qualified, conditional answers, where the answer depended upon type of handicap and level of resource support available.

24. Most teachers did not wish to teach emotionally disturbed children who would be disruptive to the class; severely retarded children; or those with severe discipline or physical problems. They felt that extensive teacher training would be required to teach such children competently.

25. If integration is increased, almost all teachers list class size as the most important consideration. Several teachers mentioned that teachers themselves would like to be consulted during planning and preparation for integration.

I. Summary of Interview Data with Special Education Teachers

What is the impact of integration? To what extent has integration of handicapped children been implemented in the Calgary Public School System, and what changes should be instituted?

Twenty-five (25) teachers of special classes were interviewed. Teachers were located in different schools. Where there was more than one special class in a school, random selections were made. For complete reporting of results, see supporting Report #7: Special Education Teachers.

Nature and Extent of Integration

1. Special class teachers reported that their students almost always take part, as an entire class block, in non-instructional activities such as recess, assemblies and concerts. Field trips may or may not be attended, depending on the particular situation. Most students participate on an integrated basis in activities such as art, physical education and music. Integration for these subjects is often determined by assessment of emotional/social behaviour. Some integration into academic subjects, on an individual basis, is carried out.

2. Some special class teachers stated that more integration would be practised in their schools if the regular classes were not so large.

3. In some schools, reverse integration is practised whereby regular students come into the special class for selected subjects.

4. It is reported that the students in the trainable mentally handicapped transitional classes generally integrate very little for instructional types of activity.

5. Most schools were said to make some sort of timetabling arrangements to integrate the special class students. Often, special class teachers accept teaching assignments with the regular students in return for integrated time for the special class students. In a few cases, no particular arrangements are made for the special classes, and the special class teacher works to accommodate himself/herself to the regular schedule.

6. Teachers observed that differing lunch-hour arrangements (special class students eat at school, regular students go home), and differing dismissal times (3:00 p.m. for the special class, 3:30 for the regular classes) constitute obstacles to successful playground integration.

Effects on Handicapped Students

7. The majority (68%) of special class teachers reported that their pupils feel as though they belong to the school which they attend. Some of these commented that the special classroom serves as a home base to the children, but they still feel a part of the school.

A minority (32%) of special class teachers reported that their pupils do not feel as though they belong to the school. Reasons mentioned were usually the bussing and scheduling differences of the special class. However, some mentioned that physical abnormalities can create difficulties in social acceptance, which removes any sense of belonging.

8. Special class placement was generally rated as effective by special teachers for almost all areas of general development of their students. For about one-quarter of the students, special class placement was not seen as effective for the basic skill areas (reading, writing, arithmetic).

Effects on the Non-Handicapped Students

9. Observations regarding social acceptance of the handicapped by the non-handicapped were mixed. It would appear that there is fairly general acceptance of the handicapped with discrete exceptions. The exceptions tend to be the physically disfigured or those whose behaviour is very different. Two teachers mentioned that the learning disabled students are accepted more readily than are the educably mentally handicapped.

10. According to the special class teachers interviewed, there is some evidence of both teasing behaviour and positive, caring behaviour on the part of the non-handicapped students. Neither is very frequent, and both can also be found among the special class children and among the non-handicapped. In some cases, the special class children are avoided; in others, they are accepted as members of the group.

Respondents noted that the attitudes of non-handicapped students towards the handicapped are not manifested in consistent behaviour patterns. In some cases, the non-handicapped tend to ignore the handicapped students altogether.

11. Special class teachers reported that integration does provide opportunity for the non-handicapped to learn to accept a wide variety of differences in people.

Effects on Regular Teachers

12. The majority (76%) of special class teachers said that regular teachers do not use them for consultation concerning their regular students. When consultation does take place, it is usually in the form of casual staff-room discussion.

13. Two benefits to regular teachers resulting from the presence of special classes were identified. Discipline problem students can be sent to the special classroom in order to relieve the regular teacher and to provide the child with one-to-one instructional attention. Through observing the achievement standards and behaviours of the special class students, regular teachers are provided with an opportunity to gain perspective on their own students.

Assessment and Placement Procedures

14. Half the special class teachers thought that the Board's assessment and placement procedures were adequate, and half thought that they were inadequate. Problems mentioned were: testing done by consultants who are strangers to the children; lack of reassessment of original placement; students are not assessed until they are eight years of age; lack of case conferences.

Desired Levels of Integration

15. The special class teachers were generally in favour of selective integration, i.e. they stated that level of integration should always be determined on a case-by-case basis.

16. There was general support for the retention of segregated institutions and of special classes for those who will continue to need them.

17. There was general agreement that integration of the severely mentally, emotionally and physically handicapped is not advisable.

18. Special class teachers stated that student placement should be evaluated according to social/emotional adjustment, academic ability, physical size and chronological age.

19. If integration into regular classes is increased, the most important considerations, according to the special class teachers, are: more planning time, smaller class size, better teaching training, individual student programming and careful student placement.

20. Most of the special class teachers supported the placement of the special classes for the moderately handicapped within

regular schools. The social benefits to the students were seen as justification for the effort involved.

21. Most of the special class teachers interviewed favoured a form of partial integration for the moderately handicapped, whereby a special class or a resource centre can provide part-time specialized instruction.

22. According to the teachers interviewed, if the amount of integration is increased, it will be important for school administration to serve two functions: provision of moral support, backing, knowledge and understanding; and provision of a liaison between the school and central administration, and between the school and its surrounding community.

23. Factors most frequently mentioned as likely to promote integration success are a positive teacher attitude, careful placement of the student, and teacher skill in dealing with the handicapped.

24. The factor most frequently mentioned as likely to cause difficulty with successful integration is negative attitude on the part of the regular teacher.

J. Summary of Interview Data with Handicapped Students and Their Parents

What impact would integration have on the handicapped child in the regular school or classroom?

Thirty-three parents, (father, mother or both), of handicapped students were interviewed. Students were all registered in a special class. All types of special classes were represented during the selection process. Where it was feasible, the student was interviewed as well. Twenty-five (25) students were interviewed. Complete report of results is found in supporting Report #9: Handicapped Students and their Parents.

Effects on Handicapped Students, As Reported by Parents

1. Parents of students in special classes reported that their children's liking for school is determined largely by whether they have a good teacher, and whether they can stay with the same group of friends over a period of years. They noted that the latter could be achieved either by placement in the neighbourhood school, or by a special class which stays together.

2. Parents of special class students who would otherwise be in regular classes (educable mentally handicapped) spoke of the advantages of the small class size and individual attention in the special class. Most parents observed improvement when their child was moved from a regular to a special class. Frustration decreased as the child began to experience success by working at his/her own level, and to find a group of which he/she could be a part.

3. Parents of special class students who would otherwise be in segregated institutions (the trainable mentally handicapped, the hearing and vision impaired) spoke of the advantages to their children of being able to mingle with regular students while at the same time receiving the specialized attention which they need.

4. Only three parents were aware of teasing and name-calling directed towards their children.

5. Some parents mentioned the disadvantage of a long bus ride, but it is seen as a secondary issue compared to the quality of the educational program. For a few parents, school transportation is welcomed as it relieves them of the need to transport the children themselves.

6. Parents report that school arrangements do have some influence on friendship patterns of the child, but type of handicap

and age of child are at least as important. The sensory impaired and trainable children tend to make friends among children with similar handicaps. The learning disabled children often have difficulty forming friendships in any setting. The educable mentally handicapped tended to have wider circles of friends, depending on the age of the child. For this latter group of children, being transported to school does create difficulty in forming friendship patterns.

7. The majority (73%) of parents of special class students considered that the schools are helping to prepare their child "... to live a productive adult life suited to his/her capabilities." Of the remainder, 15% feel that the schools are not being helpful, and 12% state that they do not know.

Preferred Form of Placement for Child

8. The majority (76%) of parents considered some form of partially integrated special class to be the preferred form of placement for their child.

9. Most parents selected a preferred form of placement similar to the one in which their child is presently enrolled.

Desired Levels of Integration

10. Most parents stated that they were not familiar with the education of handicapped children other than their own child.

11. Most parents said that they see numerous advantages to integration. They were concerned, however, that the advantages available in specialized settings not be lost to integrated students.

Assessment and Placement Procedures

12. Half the parents were able to remember assessments of their child taking place at reasonably regular intervals. Reports of frequency of assessment ranged from "once in school history" to "every six months."

13. Two-thirds of the parents had been involved in assessment procedures on at least one occasion. The other one-third either had not been involved or could not remember.

14. Very few parents had ever been involved in a disagreement over assessment and placement decisions, and these disagreements were usually resolved after appropriate discussion.

15. Among parents who had been involved with assessment procedures, there is general satisfaction with the procedures, with some

exceptions. Slow procedures were criticized in several cases. Parents of the physically handicapped sometimes have difficulty relating the results of assessment to school progress.

Effects on Handicapped Students, as Reported by the Students

16. The limited verbal ability of many special class students created difficulties for the research staff in discussing their school situations with them.

17. The special class students almost all said that they liked to be in school. Much of what they said they are learning relates to basic skills. Preferred activities tended to be "fun" subjects rather than the "hard" ones such as arithmetic. Most of the children said that they have friends in their own class, and that they do not have troubles getting along with other children. However, about half the students said they would like to move to a different school where there would be new people and former friends. Some students (about 15%) did mention teasing and other children fighting. Five of the students would prefer to be in a regular class.

18. Findings from the students, while very tentative, tend to confirm the opinions of their parents. The students are happy as long as they are finding satisfaction in their school work and they have a group of friends to whom they can relate.

CONCLUSIONS, COMMENDATIONS AND RECOMMENDATIONS

This research study has considered the problem of integration of handicapped students in the regular schools of the Calgary Board of Education from ten perspectives: (1) a review of relevant literature; (2) an analysis of integration as practised by five Canadian school districts comparable to the Calgary Public School System; (3) a description of how 26 local representatives defined the integration problem within the Calgary system; (4) a summary of statistical and descriptive data obtained from Calgary administrative records; (5) a compilation of responses to a self-study questionnaire completed by 29 of 31 regular schools randomly selected from Calgary public elementary, junior high and senior high schools; (6) a summary of teacher recordings of student behaviours in these schools; and (7) - (10) a combination of the interview comments of selected representatives of Calgary principals, teachers of regular classes, teachers of special education classes, parents of handicapped children and some handicapped students themselves.

These ten data sources have produced a comprehensive set of findings. By analysing these results in terms of their consistencies or inconsistencies, any reviewer of this report can arrive at conclusions and derive recommendations compatible with his or her set of values. The conclusions and recommendations presented in this chapter have been limited to those which can produce practical action within the next two years. Specific topics which are not discussed in this chapter may be examined by reference to the appropriate subheadings in the preceding RESULTS chapter.

Recommendations have been formulated on the basis of feasibility but also on the basis of desirability. This study was designed to gather data from multiple sources in the hopes of discovering consistent patterns upon which the Calgary Board of Education could make timely decisions affecting the future integration of handicapped students in its schools. Consistencies and trends have emerged in the data. The findings produced by examination of relevant literature were confirmed in the problem analysis interviews with Calgary school and community representatives. Topics of concern mentioned by the representatives of the five other Canadian school systems were mentioned in Calgary interviews with principals, regular teachers and special education teachers. Opinions concerning desired levels of integration are similar from one Calgary population to another. The recommendations to follow are based on considerable consistency of opinion from all data sources.

Another aspect of the integration question should be mentioned. It became evident during the course of the research study that the integration of handicapped students is an issue which can elicit strong emotional feelings. Objective discussion is sometimes difficult to achieve. Personal difficulties in dealing with handicapped persons were not the original concern of this study. Nonetheless, they are encountered in some individuals, and the desire to help and be of service can conflict with personal difficulties in actually carrying out such activities. Opinions regarding appropriate levels of societal responsibility and of proper school function also enter into integration discussion. A further issue which colours such discussion with principals and teachers is that of professional roles and responsibilities of teaching staff. Integration is not generally viewed as a single issue by teachers and principals. It is part of the larger question of professional rights and abilities to influence the composition of their jobs. To some teachers, integration means only the possibility of more work, with no choice of acceptance or refusal and without adequate back-up support. The study design, through accepting the reality of such feelings and opinions, attempted to validate the factors which engendered them. The conclusions and recommendations presented in the remainder of this chapter outline systematic steps which should assist the Calgary Board of Education to constructively and effectively resolve critical integration issues.

The conclusions, commendations and recommendations are organized according to six headings. Each heading represents an area which was considered to need attention. Where there is more than one recommendation addressed to an area, these are grouped to indicate their relatedness. Commendations and recommendations are typed in capital letters, and are preceded by relevant conclusions. Where discussion is required, it is printed in regular type following the conclusion or recommendation. Statements of commendation have been included to provide specific mention of the Board's present accomplishments in providing appropriate educational programming for handicapped persons.

The six need areas identified within the recommendations are as follows:

Need for Board Leadership and Development

Need for Individualized Planning for Integrated Students

Need for a Longitudinal Impact Study

Need for Demonstration Schools

Need for Improved Strategy in all Schools with Integrated Handicapped Students

Need for Continued Board Support of Special Education Services, and of Integrated Education

A. Need for Board Leadership and Development

Conclusions, commendations and recommendations in this section address both the achievements of the Board to date in implementing integrated educational programming, and the need for continued Board leadership and development.

Conclusion 1: The Calgary Board of Education has documented its intentions to implement seven levels of an adapted Cascade model for the integration of handicapped students. Eligible students have been placed at all levels of the model.

Conclusion 2: The Board has not adopted a formal comprehensive statement of policy on integration.

Conclusion 3: Board administration has prepared partial statements of goals and objectives for integration. Complete statements of philosophy, rationale and implementation guidelines have not been developed.

The Board has not adopted an official policy statement concerning integration. Activity which has been sanctioned to date has been mandated by motion. A paper prepared by the administration in April 1976 provides some statements of goals and objectives, but does not relate the goals and objectives to statements of philosophy and rationale. A further paper prepared in January 1978 describes current levels of integration activity, but does not provide statements of rationale, goals and objectives. The January 1978 paper describes the adapted Cascade model currently in use in Calgary. Levels in place are the regular classroom, the regular classroom with specialized instruction, part-time special class, full-time special class, special stations, homebound and residential/non-educational.

Conclusion 4: Services, defined as numbers of programs in support of both integrated and segregated education of the handicapped, provided by the Calgary Board of Education are at least as numerous as those in any of five other Canadian school systems of similar size.

Comparisons of actual numbers of students served within programs could not be made from the data obtained for the study. However, the range of services provided by the Calgary Board is at least as wide as that provided by any of five other school systems studied. There was only one service mentioned by any of the five systems which is not provided in some form in Calgary, and this was a small, segregated program for high-school students.

COMMENDATION 1: THAT RECOGNITION BE GIVEN TO THE BOARD FOR ITS ACCOMPLISHMENT TO DATE IN PROVIDING A VARIETY OF FORMS OF SPECIALIZED INSTRUCTION FOR STUDENTS WITH HANDICAPPING CONDITIONS.

COMMENDATION 2: THAT RECOGNITION BE GIVEN TO THE BOARD FOR ITS ACCOMPLISHMENT TO DATE IN ADOPTING AND IMPLEMENTING THE CURRENT CALGARY APPLICATION OF THE CASCADE MODEL.

Conclusion 5: Calgary principals are generally agreed that a set of implementation guidelines for integration of handicapped students would be useful to them.

Principals, where they have handicapped students within their schools, generally attempt to make provision for integrated education. In the absence of a detailed set of directives from central offices, principals have worked within their own situations with the resources available to them. Principals agree that they could make use of suggested guidelines for integration, if only to ensure that their directives are in line with Board thinking on the topic. Statements of Board policy concerning desired levels of integration would remove some of the ambiguity surrounding the entire topic.

RECOMMENDATION 1: THAT THE BOARD DEVELOP AND ADOPT (1) A COMPREHENSIVE STATEMENT OF POLICY; (2) A STATEMENT OF PHILOSOPHY, RATIONALE, GOALS AND OBJECTIVES; AND (3) A SET OF IMPLEMENTATION GUIDELINES FOR THE INTEGRATED EDUCATION OF HANDICAPPED STUDENTS AT ALL ACADEMIC LEVELS IN THE CALGARY SYSTEM.

The recommended documentation should be developed in consultation with Board trustees, selected teachers, school administrators and parents experienced in the integration of handicapped students.

The documentation should address topics such as the following:

... Philosophy and human development theory on which Calgary's approach to integration is based.

... Definitions of handicapping conditions in terms of the competencies and educational needs of the students who possess them.

... Assessment criteria for identifying handicapped students and determining the type and amount of their handicapping conditions.

... Assessment procedures and instruments.

- Levels of integrated activity, possibly according to a modified Cascade model.
- Models of resource support which will be provided at each level.
- Criteria for student placement within levels, and for movement from one level to another.
- Coordination of integration philosophy and practice across academic levels, and between schools in the same academic level.
- Criteria or decision rules for helping individual handicapped students and their parents work with school staff to select appropriate educational experiences.
- Policies regarding transferring students from one school setting to another.
- Definition of role responsibilities for teachers of regular classes, principals, specialized teaching personnel, and central office special education personnel.
- Qualifications and training requirements for teachers, principals, specialized teaching personnel, and central office special education personnel.
- Delineation of central office and local school responsibilities as well as those of community agencies.
- Funding policies in support of integration activities.

The recommended documentation should be updated at least every other year. Initially, the documentation will have to be formulated on the basis of expert opinion without extensive empirical support for some key issues. Recommendations to follow assert the need for prototype models of integrated school resource provision and for longitudinal study to follow up integration practice. If these recommendations are implemented, information on the results of various forms of integration practice will become available within two years. Revisions of the recommended documentation should reflect the knowledge derived from the prototype models.

RECOMMENDATION 2: THAT A DISSEMINATION PLAN BE DEVELOPED TO ENSURE THAT THE DOCUMENTATION SUGGESTED IN RECOMMENDATION #1 IS AVAILABLE TO ALL INTERESTED PERSONS, INCLUDING REPRESENTATIVES OF THE MAIN DECISION-MAKING GROUPS INVOLVED WITH INTEGRATION IN CALGARY SCHOOLS.

RECOMMENDATION 3: THAT ORIENTATION MEETINGS AND TRAINING SESSIONS BE CONDUCTED WITH RESOURCE STAFF, SCHOOL ADMINISTRATORS AND COMMUNITY REPRESENTATIVES WHO WILL BE RESPONSIBLE FOR ORIENTING OTHER PERSONS TO THE CONTENT OF THE DOCUMENTS SUGGESTED IN RECOMMENDATION #1.

Attitudes of persons involved with integration have been identified in several places in the data as one of the most important determinants to success of integration activity. To achieve maximum effectiveness, the written documentation suggested in Recommendation #1 will need to be accompanied by verbal presentation and explanation. Orientation meetings and training sessions will assist in promoting an accurate and consistent dissemination of information throughout the school system.

B. Need for Individualized Planning for Integrated Students

Conclusions and recommendations in this section are based on the recognition that handicapped students generally require individualized learning programs different from the programs typically followed by their non-handicapped peers. If integration is to be successful, the resources to accomplish individualized instruction for the handicapped must be put into place. The first step towards appropriate resource provision is to construct an adequate operational definition of "handicapped."

Conclusion 6: Numbers of handicapped students identified by teachers and principals using the study definition of "handicapped" are estimated at 17% of the total regular school population. Estimates at the elementary levels range between 10%-15%. Estimates at the secondary level are higher, and range upwards of 20%.

Handicapped was defined in this study as "...requires a modification in regular school practices in order to develop to maximum capacity." Casual estimates by principals, more exact counts of pupils with specific, categorized handicaps and behaviour records produced by teachers all corresponded to produce an estimate of 10%-15% of the elementary population as handicapped. Close inspection of the data indicates that 11%-12% is probably the most accurate figure. Estimates provided by principals at the secondary levels were higher, with an average of 26% of junior high enrollment and 19% of senior high enrollment reported as handicapped.

Conclusion 7: Numbers of handicapped students identified by teachers and principals using the study definition of "handicapped" are greater than the numbers of students served by special education programs. There is a residual group of school-defined handicapped students who do not fall under central Board programs. This group is estimated to number about 3% of the elementary school population and about 17% of the secondary school population.

Principals report that less than half (39%) of the handicaps mentioned in Conclusion 6 have been assessed by Student Services for the purpose of declaring eligibility for a special education program. The remainder of the handicaps have been identified by means developed within the individual schools. The large majority of the non-assisted handicapped students (60%) are located at the secondary levels, with the remainder (40%) located within the elementary grades.

Conclusion 8: Handicapped students who are not receiving assistance from central special education programs are generally described as having mild learning/behavioural/cultural/emotional/discipline problems.

Principals mention that there seem to be growing numbers of students who exhibit mild learning and/or behaviour problems. Such students are usually outside the range of the centralized services provided by the Board. The majority of centralized special education services are provided for the benefit of the elementary grades.

COMMENDATION 3: THAT RECOGNITION BE GIVEN TO THE BOARD FOR PROVIDING VARIOUS FORMS OF SPECIAL EDUCATION RESOURCE SERVICES TO APPROXIMATELY EIGHT (8) PER CENT OF THE ELEMENTARY SCHOOL POPULATION.

RECOMMENDATION 4: THAT THE BOARD AUTHORIZE ACTIVITY TO DEVELOP AND APPROVE DEFINITIONS OF HANDICAPPED STUDENTS AND HANDICAPPING CONDITIONS THAT MODIFY THE CATEGORIES CURRENTLY USED TO IDENTIFY STUDENTS FOR GRANT PURPOSES.

The conclusions presented above indicate that the definitions of "handicap" currently used by the Board are not covering the total range of students whom teachers define as handicapped. Further, the review of literature substantiates well how the currently accepted categories of handicapped students (e.g., intellectually handicapped, learning disabled, socially maladjusted, language deficit) focus on student disabilities, and tend to be negative labels. These conventional terms based on a medical diagnostic model do not facilitate decision-making about the nature and degree of a student's handicapping condition, the competencies she/he possesses, her/his educational needs, or educational experiences appropriate to those needs.

It is strongly recommended that the Board explore the possibilities of developing definitions based on students' actual and desired competencies. Such an approach would be consistent with the development of the Screening Checklist of Student Behaviours constructed for and used in this study. Definitions should specifically define behaviours that constitute categories such as the three used in this study: mild, moderate and severe handicapping conditions. In this study, definitions were of necessity, limited to description of the three categories by the type of educational settings appropriate for handicapped students. Lack of suitable frameworks prevented use of definitions which described the behaviours, competencies and characteristics of the students themselves.

The Board should recognize that, if it modifies the conventional labels to ones more conducive to educational diagnosis and program planning, the road will be opened to increased numbers of students being formally assessed as "handicapped" and therefore in need of specialized learning assistance. In addition, the issue of the relation of local Board definitions to those required by provincial grant regulations must be considered. However, by resolving this issue, the Board will make explicit its intents and goals in the area of integrating handicapped students.

RECOMMENDATION 5: THAT CAREFUL REVIEW AND VALIDATION BE MADE OF INSTRUMENTS SUCH AS THE STUDY'S SCREENING CHECKLIST OF STUDENT BEHAVIOURS THAT CAN BE USED BY TEACHERS AND OTHER KNOWLEDGEABLE STAFF TO IDENTIFY AND ASSESS STUDENTS WITH POSSIBLE HANDICAPPING CONDITIONS.

The Checklist and other such instruments have been developed to help teachers identify students who have handicapping conditions that either limit their competencies in some ways, or provide them with additional competencies in other areas. The reliability and validity of these instruments need to be closely investigated. If one or more of them prove to be effective, they can be adopted as an efficient initial screening technique for expediting the identification of students who have special needs.

RECOMMENDATION 6: IF RECOMMENDATION 4 IS IMPLEMENTED, AND NEW DEFINITIONS ARE ESTABLISHED, THAT A SIMILAR REVIEW BE MADE OF ASSESSMENT PROCEDURES AND INSTRUMENTS CURRENTLY USED IN CENTRALIZED STUDENT ASSESSMENTS. THIS REVIEW SHOULD ENSURE THAT: (1) THOSE ASSESSMENT STRATEGIES ARE COMPATIBLE WITH THE REVISED DEFINITIONS, AND (2) THEY ARE AS EFFICIENT AS POSSIBLE IN ORDER TO EXPEDITE THE ENTIRE DIAGNOSIS/PLACEMENT/PROGRAMMING PROCESS.

If the Board modifies the definitions of "handicapped" currently in use, it is highly probable that changes in procedures for assessing handicapping conditions will be required. Procedures should be examined for efficiency as well as definitional validity, in order to ensure optimum use of a key resource in the integration process.

RECOMMENDATION 7: IF THE DEFINITIONS OF HANDICAPPED STUDENTS AND HANDICAPPING CONDITIONS ARE MODIFIED AND IMPROVEMENTS ARE MADE IN THE STUDENT IDENTIFICATION AND DIAGNOSTIC PROCESS, THAT THE BOARD APPROVE THE SPECIFICATION OF (1) EDUCATIONAL METHODS AND RESOURCES (E.G., EQUIPMENT, MATERIALS) APPROPRIATE TO THE MAIN EDUCATIONAL NEEDS OF HANDICAPPED STUDENTS; (2) PROCEDURES BY WHICH PARENTS AND THEIR HANDICAPPED STUDENTS CAN PARTICIPATE WITH SCHOOL STAFF IN PLANNING PERSONALIZED EDUCATIONAL PROGRAMS; AND (3) PROCEDURES BY WHICH THEY CAN MONITOR THE EDUCATIONAL PROGRESS OF THOSE STUDENTS.

The preceding recommendations addressed the need for improved identification and diagnosis of handicapped students. One purpose of those suggestions is to provide information that will facilitate the development, implementation, and progress monitoring of an individualized educational plan for each handicapped student. Wherever possible, the parents and the student should be involved in the planning and monitoring process. Team planning should be initiated to include at least the teacher who will be accepting the student in an integrated setting. Just who the other team members should be, what resources would be available to the team, and what procedures should be used must be resolved. More specific suggestions on resource provision and planning are provided in a later section of the recommendations.

Part of the rationale behind recommending this individualized approach to planning and monitoring handicapped students' programs stems from a belief that integration should not be regarded as a desirable end state, to be achieved for its own sake. It should be regarded as a means to an end where the end desired is a productive educational experience for a handicapped student. In some cases, integration may not be productive, and it should not be forced under these circumstances. A highly individualized planning procedure conducted by a team approach can be an effective means of preventing a misplacement.

C. Need for a Longitudinal Impact Study

The recommendation in this section addresses the need to begin procedures to gather long-range evidence of the impact of integration.

Conclusion 9: The literature does not provide definitive conclusions concerning the absolute superiority of any type of placement setting for the education of handicapped children.

Conclusion 10: There is virtually no evidence concerning the long-range effects of integration.

There is a general lack of definitive evidence in the research literature concerning effects of integration. Difficulties in finding appropriate research instruments, and difficulties in measurement and definition of all relevant controlling factors, combine to create problems with consistent interpretation of research findings. Further, there is no quantitative, objective data available on the integrated students of Calgary and on their families. Anecdotal reports of opinion data would indicate that integration is seen as favourable, but no firm evidence exists to confirm these impressions.

RECOMMENDATION 8: THAT A SYSTEMATIC STUDY BE DESIGNED TO ASSESS STUDENT AND FAMILY OUTCOMES EXPERIENCED BY A REPRESENTATIVE SAMPLE OF MODERATELY AND SEVERELY HANDICAPPED INDIVIDUALS WHO HAVE BEEN PLACED IN INTEGRATED SETTINGS. COMPARISONS SHOULD BE MADE TO A SIMILAR GROUP WHICH HAVE NOT BEEN PLACED IN INTEGRATED SETTINGS, PROVIDED THAT SUFFICIENT COMPARABLE INDIVIDUALS CAN BE FOUND. SUCH A STUDY SHOULD BE VIEWED AS THE PRELIMINARY STAGE FOR A LONGITUDINAL INVESTIGATION OF INTEGRATION EFFECTS.

Studies in which the effects of integrated and segregated placements are compared have been immersed in methodological problems. These include selection bias; lack of comparable students in the two treatment groups; problems in establishing acceptable criteria for comparing student outcomes; and inadequate or inappropriate evaluation instruments for assessing student outcome attainment. With adequate preparation time, the problems of inadequate instruments for outcome assessment can be overcome. Design difficulties may still remain, depending on placement decisions adopted by the Board. Nonetheless, design of a comprehensive longitudinal study is a responsible action in light of the current dearth of information regarding the long-range effects of practices already in effect in Calgary and in many other settings. If school assessment records can be maintained in a form suitable for research purposes, so that some relevant data is readily accessible to assess effects on students, then an efficient longitudinal study would not be prohibitively expensive.

D. Need for Demonstration Schools

The conclusions and recommendations in this section address the need to begin selective provision of additional resources for integration on a staggered, sequential basis.

Conclusion 11: The weight of opinion, from all data sources investigated in this study, is that integration is generally felt to be favourable if placement was appropriate and if adequate resource support was provided.

This finding must be interpreted in light of a background situation in Calgary in which level of integration for any individual student generally is case conferenced by several persons, and in which integration is practised with a relatively conservative bias. In other words, situations with a high probable perceived risk of failure tend to be avoided where resources make alternative forms of placement possible. For the majority of students in integrated placements in Calgary, informal observation reports successful outcome.

Conclusion 12: The majority of regular teachers interviewed who were presently teaching handicapped students found the experience to be either pleasurable or no different from teaching any other students. A significant minority (32%) found the experience negative and stressful. A similar percentage (43%) said that the presence of handicapped students in their class had reduced the instructor time given to the non-handicapped students.

The teachers who had enjoyed teaching handicapped students mentioned the general eagerness and receptivity of many of these children. When progress becomes visible with the student, it is a source of pleasure to the teacher. Those who found the experience unpleasant generally mention fatigue and stress caused by the need to move more slowly with the handicapped student, which in turn creates difficulty in providing appropriate instruction to the rest of the class.

Conclusion 13: Teaching staff, principals and teachers object to increased integration without provision of extra resources. Appropriate resources include: additional staff and/or decreased class size; regular planning and preparation time; special training and consultation; and adequate curriculum materials.

Conclusion 14: There was no general expression of need from Calgary schools for special equipment or architectural modifications to buildings beyond what has presently been provided. A few schools did indicate that they have requests which have not been satisfied. Three of these were for partitioning to provide "time-out" or resource space.

Conclusion 15: The special resource consultants most frequently used by the elementary schools are the Visiting Teacher, the School Psychologist and the Speech Pathologist. For each of these services, one-half or more of the schools studied report that the amount of service provided is not adequate to meet the needs of the school.

RECOMMENDATION 9: THAT THE IMPLEMENTATION OF IMPROVED RESOURCE SUPPORT FOR THE INTEGRATED EDUCATION OF HANDICAPPED CHILDREN PROCEED ON A WELL-PHASED, SCHOOL-BY-SCHOOL BASIS. THE BOARD SHOULD ALLOCATE FUNDS TO A FEW SELECTED SCHOOLS (PERHAPS IN ONE AREA). SCHOOLS SHOULD BE SELECTED ON THE BASIS OF RELATIVELY LARGE NUMBERS OF HANDICAPPED CURRENTLY IN PLACE, OR OF WILLINGNESS TO ACCEPT ADDITIONAL HANDICAPPED STUDENTS. FEEDER SYSTEMS TO SECONDARY SCHOOLS SHOULD BE CONSIDERED IN ELEMENTARY SCHOOL SELECTION. THESE SCHOOLS WOULD LATER SERVE AS MODELS OF SUCCESSFUL APPROACHES SO THAT OTHER CALGARY SCHOOLS COULD BUILD ON THEIR ATTEMPTS. A TOTAL SYSTEM APPROACH TO INTEGRATION IS NOT RECOMMENDED UNTIL SUCH MODELS HAVE BEEN IMPLEMENTED AND EVALUATED AND ARE AVAILABLE TO SERVE AS DEMONSTRATION SITES.

Numbers and types of handicapped pupils vary from school to school, and within schools from year to year. The need is greater in some settings than in others. A phased implementation approach will allow the Board time to assess results and correct mistakes in progress. Authorities with experience in integration seem to agree that changes must be made slowly, with considerable advance preparation. Time must be allowed for all parties involved to fully explore opinions and attitudes.

Further, it should be recognized that successful integration depends on school organization and participation, as well as a basic classroom organization and participation. In a school which has integrated classrooms, administrators must make scheduling and resource allocation decisions, other teachers must assist on the playground, etc. The school is the logical unit of approach in beginning attempts to improve integrated education.

RECOMMENDATION 10: THAT THE BOARD DESIGN IMPROVED RESOURCE SUPPORT FOR THE INTEGRATED EDUCATION OF HANDICAPPED CHILDREN WITH REFERENCE TO THE FOLLOWING MODEL (SEE PAGE 58).

Cascade Levels	Instructional and/or Programming Authority	Resource Supports to Classroom
Regular Classroom, no handicapped students		1. In-service on diagnosis and assessment.
LEVEL I: Regular Class, no instructional assistance	Regular Teacher	
LEVEL II-A: Regular Class, with instructional assistance	Regular Teacher and Resource Teacher	2. In-service on instructional methods, classroom management and use of resource personnel.
LEVEL II-B: Regular Class with highly specialized instructional assistance	Regular Teacher and Learning Assistance Centre Staff	3. Instructional materials. 4. Reduced class size.
LEVEL II-C: Regular Class, with assistance for sensory impaired students	Regular Teacher and Itinerant Teacher	5. Teacher aide. 6. School tutor.
LEVEL III: Special Class, part-time	Special Education Teacher	
LEVEL IV: Special Class, full-time	Special Education Teacher	
Successive levels: home-confined, residential		

The following notes will assist in interpretation of the model:

1. The model is constructed to conform to the levels listed in the Calgary adaptation of the Cascade model. The Levels in the left-hand column indicate student instructional placement, with placement always to the highest possible level.

2. The model does not indicate the presence of certain categories of specialized resource personnel currently employed by the

Board, i.e. the Visiting Teacher, the School Psychologist, the Speech Pathologist, the Attendance Officer and the Guidance Counsellor. It is assumed that these individuals would continue to fill their usual functions in the demonstration schools.

3. All resources listed in the table should be considered to be potentially available for any integrated classroom. Principals should be assisted to prepare needs assessments of the students and teachers in their schools in order to guide central administration in the distribution of resources between schools. Need for resources related to determination of Cascade level (i.e. the Resource Teacher, Learning Assistance Centre, Itinerant Teacher or Special Education Teacher) should be assessed on the basis of instructional requirements of the handicapped student(s). Need for resource supports to the regular classroom (i.e. in-service, materials, reduced class size, Teacher Aide or School Tutor) should be assessed on the basis of both instructional requirements of the handicapped student(s) and the ability of the regular teacher to manage the teaching of the entire class. It is expected that teachers and principals will normally make use of the resources sequentially, in the downward direction. Resources which are higher on the list will be used to full benefit before moving to resources lower on the list. However, there may be exceptional cases in which the usual order of resource use is reversed. The classroom resources are shown on the model as extending down from Cascade Level I to Cascade Level III. Regular teachers who receive the part-time special class students (Level III) may require resource support similar to that provided to teachers at Level I and Level II of the model.

4. The top line of the model "Regular Classroom, no handicapped students" was inserted to indicate that it is advisable for all teachers in the Calgary system to receive some in-service instruction on diagnosis and assessment of handicapped students. Unless there are unusual circumstances which determine otherwise, all schools with integrated classrooms are expected to require the second level of in-service (on instructional methods, classroom management and use of resource personnel) and special instructional materials. In-service should generally be regarded as a prerequisite to the right to accept handicapped children into the classroom.

5. Definitions of roles and responsibilities between all personnel in the model must be discussed and outlined. The issue of authority over the educational programming of the student must be addressed. For example, it is assumed that the regular teacher would assume authority over the teacher aide. Appropriate sharing of responsibility between the regular teacher and the resource teacher may require discussion. It is expected that the Resource Teacher, the Itinerant Teacher and the Learning Assistance Centre staff will fill two functions: provision of actual instruction to the students; and provision of consultative advice to the teacher. (The latter function

of consultation could classify them as a Level I resource; this classification was omitted from the model in order to simplify the presentation.

6. Teacher Aides, School Tutors, Resource Teachers and Learning Assistance Centre personnel form a hierarchy of increasing experience and increasing specialized competence. The Teacher Aide does not need a degree, but the other four types of personnel are assumed to have at least one degree. School Tutors and Resource Teachers can be created through intensive in-service training of exceptionally good teachers. Learning Assistance Centre staff generally require advanced university instruction in special education. Itinerant Teachers have received specialized instruction in teaching of students with particular disabilities. Teacher Aides, Resource Teachers, Itinerant Teachers and Learning Assistance Centre staff are defined by job functions similar to those in existence in Calgary at present. School Tutors are expected to work with students on a one-to-one or group basis, under the direction of the regular classroom teacher.

7. School Tutors and Resource Teachers may work within a single school, or be shared between two or more small schools. Learning Assistance Centre staff will draw pupils from several schools. Teacher Aides will normally be assigned on a shared basis to two or more classrooms. Itinerant Teachers will be assigned to specific pupils.

8. There will likely be some students with highly specialized needs who cannot be fitted into the Level I and/or Level II resource patterns shown in the model, e.g. physically handicapped students with a need for some form of specialized therapy. These students, when assisted by an appropriate resource, would be considered to be placed at an additional subcategory of Level II on the model.

9. Numbers and amounts of resource support required will vary with numbers of handicapped children in a class, and with the nature of the handicap. Precise specifications, based on empirical evidence, could not be obtained from the literature. A set of tentative numerical specifications has been developed for use in guiding the planning for the demonstration schools. These specifications are presented in the accompanying report on cost estimates. The experience accumulated by the demonstration schools over the next two years will assist in establishing the validity of the proposed specifications.

RECOMMENDATION 11: THAT PROVISION FOR ADEQUATE EVALUATION PROCEDURES BE INCLUDED IN THE DESIGN FOR THE DEMONSTRATION INTEGRATED SCHOOLS.

The experiences of the demonstration schools over the next two years should be systematically observed and recorded in order to influence the direction of integration activity in other schools. Observation should include reporting on at least the following topics: amount and nature of in-service required; in-school needs assessments; procedures for monitoring progress of the handicapped student; procedures for monitoring progress and behaviour of non-handicapped students; patterns of community reaction; patterns of resource usage; effectiveness of resources provided as related to numbers and particular disabilities of handicapped students; reactions of regular teachers. It is expected that the results of the experiences of these demonstration schools will influence content of the documentation described under Recommendation 1.

E. Need for Improved Strategy in all Schools with Integrated Handicapped Students

The conclusions and recommendations in this section address needs identified in schools which presently have numbers of handicapped integrated students.

Conclusion 16: Students in special classes located in regular schools are almost always integrated for non-instructional activities such as concerts and assemblies. Integration in instructional subjects such as art, music and physical education is common. Integration in the basic academic skill areas such as arithmetic is rare, but examples can be found.

Principals and special class teachers are consistent in their description of integrated activity of the special class students. Students are almost always integrated for the non-instructional activities such as concerts, assemblies, and recess time. Students are usually integrated into the expressive subjects such as art, music and physical education, unless the student's behaviour prevents such integration or unless the regular classes are already full. Integration into academic skill areas is practised occasionally when it seems likely that the student can benefit. Special class teachers frequently teach some subjects to regular students in return for integrated teaching time with their own students. Most schools, with a few exceptions, deliberately schedule to include the special class students in events wherever possible.

COMMENDATION 4: THAT RECOGNITION BE EXTENDED TO SPECIAL CLASS TEACHERS, REGULAR TEACHERS AND PRINCIPALS IN SCHOOLS WITH INTEGRATED SPECIAL CLASSES FOR THEIR ACCOMPLISHMENTS IN PARTIAL INTEGRATION OF THE SPECIAL CLASS STUDENTS.

Conclusion 17: Principals and regular teachers both state that, for the handicapped students located in regular classrooms, no special arrangements are made. Minor modifications such as lowering of expectations and change in distribution of instruction time are frequent.

A previous set of recommendations addressed the need for individualized programming for handicapped students. It would appear that Calgary teachers do in fact "individualize" programs through such actions as changing expectations of quality and quantity of work from the handicapped; providing additional instruction time where possible; and grouping students to accommodate the handicap. There is not, however, an "individualized" program in the sense that each student's learning schedule is systematically designed and monitored by the school.

RECOMMENDATION 12: THAT SCHOOLS WHICH HAVE INTEGRATED HANDICAPPED STUDENTS BE ASSISTED TO DEVELOP INDIVIDUALIZED EDUCATIONAL PLANNING APPROACHES FOR THOSE STUDENTS, AND THAT INTERNAL MONITORING PROCESSES BE DEVELOPED TO ENSURE THAT (1) THE HANDICAPPED STUDENTS ARE PROGRESSING SATISFACTORILY; (2) THEIR NON-HANDICAPPED PEERS ARE ALSO PROGRESSING SATISFACTORILY; AND (3) THE NON-HANDICAPPED PEERS ARE NOT EXPERIENCING UNDESIRABLE SIDE EFFECTS.

Conclusion 18: Principals and teachers generally assert that integration has increased tolerance, understanding and awareness among their non-handicapped pupils. There is, however, continued evidence of some teasing, taunting and negative behaviours towards the handicapped pupils. Such behaviour is said to be relatively infrequent and does not reach a level which would prohibit integration.

RECOMMENDATION 13: THAT SCHOOLS INVOLVED IN INTEGRATION ACTIVITY CONSIDER IMPLEMENTING ORIENTATION AND READINESS PROGRAMS FOR STUDENTS SO THAT STUDENTS WILL BE BETTER ABLE TO INTERACT CONSTRUCTIVELY IN INTEGRATED INSTRUCTIONAL AND NON-INSTRUCTIONAL ACTIVITIES.

Systematic attitude change programs might possibly alleviate some of the social acceptance problems noted above. Printed materials and audiovisual resources currently available could be adapted or used without modification. Various educational authorities have developed a series of videotapes, films, and printed materials to provide young children with an informed understanding of their handicapped peers, and to promote constructive interaction between handicapped and non-handicapped students in integrated classrooms. Such materials could be purchased centrally and loaned to appropriate schools as required.

Conclusion 19: Principals report little reaction from the community, either positive or negative, to the presence of handicapped students in the school.

RECOMMENDATION 14: THAT SCHOOLS INCREASING EXTENT OF INTEGRATION BEYOND PRESENT LEVELS CONSIDER PRESENTING COMMUNITY ORIENTATION PROGRAMS AIMED AT PREVENTING NEGATIVE REACTIONS.

Conclusion 20: Most regular teachers interviewed who currently have handicapped students in their classrooms were selected either on a basis unknown to them, or because they had requested the experience or through considerations of timetabling convenience.

Conclusion 21: Less than one-third of this group of regular teachers had ever received instruction in the teaching of handicapped children.

Conclusion 22: Most principals and teachers are in favour of integration of the mildly and moderately handicapped, if appropriate resource support is provided.

RECOMMENDATION 15: THAT SCHOOLS WHICH HAVE INTEGRATED HANDICAPPED STUDENTS BUT ARE NOT INCLUDED AMONG THE DEMONSTRATION MODEL SCHOOLS BE DIRECTED TO REQUEST IN-SERVICE TRAINING FOR THE PRINCIPAL AND THE TEACHERS OF THE INTEGRATED CLASSROOMS. THE IN-SERVICE SHOULD INCLUDE MATERIAL ON DIAGNOSIS, INSTRUCTIONAL PROCEDURES AND CLASSROOM MANAGEMENT. IN-SERVICE SHOULD BE DESIGNED TO MAKE MAXIMUM USE OF THE KNOWLEDGE ALREADY ACCUMULATED BY CALGARY TEACHERS AND PRINCIPALS IN THE AREA OF EDUCATION OF THE HANDICAPPED.

In the absence of firmer guidelines and increased resource support, such as those under development in the prototype demonstration models, in-service still can serve useful functions. It can provide a medium in which to share ideas and knowledge already gained; as a social system to provide support and backing; as an opportunity for central special education resource persons to dispense useful technical information; and as an opportunity to explain new procedures such as the individualized instructional monitoring systems described in a previous recommendation. It is suggested that the recommended in-service be organized by central resource staff, and be delivered on a zone basis with substitute release time arranged in the individual schools.

F. Need for Continued Board Support of Special Education Services, and of Integrated Education

Conclusions and recommendations in this section are addressed to the need for continued Board support of services, both integrated and segregated, to handicapped students.

Conclusion 23: The majority of all respondent groups interviewed in the study are in favour of integration for mildly and moderately handicapped students. Teachers and principals are generally opposed to the integration of children with severe emotional, physical or mental handicaps.

Conclusion 24: The weight of available opinion data tends to indicate that integrated learning experiences do provide social benefits to most handicapped students.

Conclusion 25: The weight of available opinion data tends to indicate that segregated learning experiences will always be required for some handicapped students.

Teachers and principals are generally willing to assume teaching responsibilities with most handicapped children if appropriate resource support is provided. This latter qualification must be stressed, as provision of appropriate resource support is almost always mentioned as an absolute requirement for successful integration. Most teachers and principals with integration experience speak favourably of benefits to students. However, teaching staff tend to oppose the integration of children with extreme handicapping conditions. It is felt that severely emotionally disturbed children could become too disruptive to a class, and that severely retarded children would become too isolated. Caring for the severely physically handicapped may be beyond regular class capacity, even with resource assistance.

RECOMMENDATION 16: THAT THE BOARD CONTINUE TO SUPPORT INTEGRATION OF HANDICAPPED STUDENTS TO THE MAXIMUM EXTENT POSSIBLE WHEN SUCH INTEGRATION ACTIVITIES ARE APPROPRIATE TO THE INDIVIDUAL EDUCATIONAL NEEDS OF EACH STUDENT.

RECOMMENDATION 17: THAT THE BOARD MAINTAIN EDUCATIONAL OPPORTUNITIES FOR STUDENTS AT ALL LEVELS OF THE CURRENT CASCADE MODEL. SPECIFICALLY, THERE SHOULD BE NO ATTEMPT, NOW OR IN THE LONG-RANGE, TO CLOSE DOWN THE SPECIAL CLASSES OR THE SEGREGATED INSTITUTIONS.

Recommendation 16 and Recommendation 17, in conjunction, suggest the retention of all educational structures presently maintained by the Board, together with the use of placement procedures which place individual students towards the regular classroom to the maximum extent possible. The recommendations are, in effect, a reaffirmation of the Cascade principle of educating according to the mainstream. The remainder of the recommendations are suggestions towards operational procedures to help accomplish optimal student placement.

Conclusion 26: The specialized resource personnel provided by Student Services are used by the large majority of schools. Reports of insufficient time to meet existing needs are frequent.

The visiting teacher service was used by all but one of the Calgary schools studied. Almost all the schools make use of the school psychologist and the speech pathologist. Frequent mention was received of the inability of these personnel to respond quickly and fully to all the students whom teaching staff would like to refer. Some principals have mentioned the need for additional student space in the Learning Assistance Centres and the special classes. At the secondary levels, all schools have guidance counsellors on at least a part-time basis. The guidance counselling service was generally rated as adequate in numbers to the task expected of it.

RECOMMENDATION 18: THAT THE BOARD CONTINUE TO PROVIDE ITS PRESENT COMPLEMENT OF SPECIALIZED RESOURCE PERSONNEL. SPECIFICALLY, THE CATEGORIES OF VISITING TEACHERS, PSYCHOLOGISTS, SPEECH PATHOLOGISTS, CLINICIANS AND TUTORS IN LEARNING ASSISTANCE CENTRES, GUIDANCE COUNSELLORS, ATTENDANCE OFFICERS AND SPECIAL EDUCATION TEACHERS, SHOULD BE MAINTAINED. SERVICES SPECIFICALLY DESIGNED FOR INTEGRATED CLASSROOMS SHOULD BE CONSIDERED AS ADDITIONAL TO THE ABOVE SERVICES.

Services specially designed for integrated classrooms generally have the function of assisting teachers to perform more competently in those settings, both as instructor to individual students, and as manager of a larger group of students. The services provided by the specialized resource personnel listed above, generally entail providing one-to-one assistance to individual students, or consultations with teachers about particular students. However, it is a reasonable expectation that changes to teaching patterns in the regular classroom will eventually produce changes in the patterns of referrals to central specialized resource personnel. If the proposed models of integrated education are successful in their intentions, then some of the need for referral to outside specialists may disappear altogether, while the typical relation of the outside consultant to the regular teacher may shift in a direction towards increased consultation with teachers rather than with students. The evaluation of the demonstration models suggested in Recommendation 11 should include consideration of referral patterns.

RECOMMENDATION 19: THAT THE BOARD UNDERTAKE AN INTERNAL REVIEW OF THE FUNCTIONS, REQUIRED COMPETENCIES AND ACTIVITIES OF ITS SPECIALIZED RESOURCE PERSONNEL. SPECIFICALLY, THE CATEGORIES OF VISITING TEACHER, SCHOOL PSYCHOLOGIST, SPEECH PATHOLOGIST, LEARNING ASSISTANCE CENTRE STAFF (CLINICIANS AND TUTORS), GUIDANCE COUNSELLORS, ATTENDANCE OFFICERS AND SPECIAL EDUCATION TEACHERS SHOULD BE EXAMINED FOR THEIR PRESENT AND PROJECTED RELATION TO INTEGRATED EDUCATION.

If the review suggested in Recommendation 19 is undertaken within the 1978/79 school year, decisions based on the review will be available for consideration in conjunction with the preliminary results on referral patterns from the demonstration models. Analysis of results from these two sources should allow the Board to make a well-informed decision concerning desirable numbers of specialized resource staff.

It is suggested that the review of special resource personnel include conversation with teachers and principals, in addition to the usual examination of statistical data and reports from the personnel themselves. The review should include consideration of (1) current functions of specialized personnel; (2) proposed functions, i.e. those which will and/or should emerge if integrated educational opportunities increase; (3) required competencies for performing the proposed functions; (4) training activities which would be required if upgrading is necessary; and (5) numbers of students/teachers/schools who can be assisted by each individual resource person, given the specified proposed functions.

RECOMMENDATION 20: THAT THE BOARD CONSIDER HIRING ADDITIONAL NUMBERS OF SPECIALIZED PERSONNEL AS AN INTERIM MEASURE FOR THE NEXT TWO YEARS. SPECIFICALLY, NUMBERS OF SPECIAL EDUCATION TEACHERS, VISITING TEACHERS, SCHOOL PSYCHOLOGISTS, SPEECH PATHOLOGISTS AND LEARNING ASSISTANCE CENTRE STAFF SHOULD BE INCREASED.

The planning measures suggested in other recommendations in this report should result in well-informed recommendations concerning functions and required numbers of specialized staff within two years. In the meantime, there is clear indication of needs in the school system which are not being met. Increases in centralized resource staff are recommended to increase system capacity to deal with present problems. At the same time, planning measures have been recommended to assist the system in dealing with these problems at a more fundamental level.

Attachment A

SUMMARY: A STUDY OF THE INTEGRATION OF HANDICAPPED STUDENTS IN THE REGULAR SCHOOLS OF THE CALGARY BOARD OF EDUCATION

1978 06 27

SUMMARY: A STUDY OF THE INTEGRATION OF HANDICAPPED STUDENTS IN THE REGULAR SCHOOLS OF THE CALGARY BOARD OF EDUCATION

Mr. Chairman, Members of the Board:

On behalf of the Canadian Institute for Research, I am pleased to present a summary of the major findings and the recommendations of the study on the integration of handicapped children into the regular schools of the Calgary Board of Education. We fully recognize the importance of the topic of integration to modern educational systems. We trust that our presentation of findings and our suggested recommendations will prove useful to the members of the Board as they consider the issues involved.

We are presenting tonight the results of a study which has extended over the past year (since June 1977). Information has been gathered and analyzed from a total of ten different data sources to arrive at final conclusions. Recommendations are addressed to a need to rationalize and plan for activities which are already partially in place, and to a need to extend service in some new directions.

BACKGROUND OF STUDY

This study was commissioned in June of 1977 to provide answers to 5 basic questions specified in the Terms of Reference:

Question #1: What impact does integration have? What are the effects of integration likely to be?

Question #2: What does the professional literature indicate about integration?

Question #3: To what extent has integration actually been implemented in Calgary? What changes should be instituted?

Question #4: What have other Canadian school systems similar in size to Calgary done with respect to integration? What have been the results of their activities?

Question #5: What would be the costs to the school system if integration were fully implemented?

The key terms "integration" and "handicapped" were not defined in the Request for Proposal. The Canadian Institute for Research, in collaboration with the study Steering Committee, decided to conduct a study of very broad scope by defining integration simply as "education of handicapped students in the regular schools of the Calgary Board of Education," and by defining handicapped as "one who requires modification in regular school practices in order to develop maximum capacity."

Data-collection procedures were designed to investigate integration using these basic definitions. The procedures included: (1) literature review; (2) survey of 5 other Canadian school systems; (3) interviews with various representatives of the educational and lay communities in Calgary; (4) analysis of statistical data from central administrative records; (5) questionnaire survey of integration practise in a random sample of elementary, junior high and senior high schools; (6) summary of teacher recordings of student behaviours in the random sample of schools; and (7) - (10) interviews on attitudes towards integration with selected Calgary principals, teachers of regular schools, teachers of special education classes, and parents of handicapped students together with some students themselves.

MAJOR FINDINGS

The findings are listed according to the study research questions:

Findings Related to Question #1

What impact does integration have?

1. Effects of integration on handicapped children are held to be variable, depending on individual characteristics of the children and on characteristics of the situation.

2. Anecdotal and opinion data tend to indicate that integration generally benefits handicapped students, particularly in a social sense.

3. Integration, to the level practised in Calgary, is generally held to be beneficial to the handicapped students. Most handicapped students were judged by their teachers to have been appropriately placed.

4. The presence of handicapped students can compromise the regular teacher's time and instructional adequacy to his/her non-handicapped students if appropriate resource support is not provided.

5. In cases where adequate resource support was provided, no detrimental effects on non-handicapped students were identified.

Findings Related to Question #2

What does the professional literature indicate about integration?

1. Research on results of short-term effects of integration are mixed, with no definitive conclusions emerging from the literature. The net weight of evidence is in favour of integration, but negative findings can be identified.

2. There is virtually no evidence on the long-term effects of integration.

3. There is general agreement that provision of resource supports beyond those required for the regular classroom are essential for successful integration. There is extensive discussion in the literature of models of resource provision.

Findings Related to Question #3

To what extent has integration been implemented in Calgary? What changes should be instituted?

1. The Calgary Board of Education has students placed at all seven levels of an adapted Cascade system.

2. According to estimates provided by Calgary principals, approximately 17% of the total student population of regular schools is said to be handicapped, using the study definition. The estimates at the elementary levels range from 10% to 15%, while the estimates at the secondary levels range upwards from 20%.

3. Approximately 7-8% of the 17% estimated handicapped students are receiving some form of assistance from a special education program. The remaining students who are not receiving special assistance are usually described as having mild learning, behavioral

or cultural problems.

4. More than half (53%) of the special classes in Calgary are in regular schools. Almost all of these schools practise some form of partial integration.

5. There is general criticism that the centralized special education services in Calgary are short-staffed. The Visiting Teacher and the School Psychologist services in particular were rated as inadequate to the task at hand by more than half the schools questioned.

Findings Related to Question #4

What are the activities of other Canadian school systems with respect to integration?

1. Services, defined as numbers of programs in support of both integrated and segregated education of the handicapped, provided by the Calgary Board of Education are at least as numerous as those provided by any of five other Canadian systems studied. Statistics on numbers of students served within these programs were not available for every system. Evidence which was available indicates that the performance of the Calgary Board with respect to integration compares favourably with the performance of all other systems.

2. None of the five other systems has developed a coherent program for integration, with explicit statements of philosophy, rationale, goals and implementation guidelines.

Findings Related to Question #5

What are the costs of full integration?

Findings related to costs have been developed in a separate report by Dr. G. Loken, Professor of Educational Administration at the University of Calgary. Dr. Loken will present his results verbally following presentation of the recommendations in this paper.

RECOMMENDATIONS

Recommendations have been proposed based on the following assertions and assumptions:

1. The Cascade principle of educating as close to the mainstream as possible is accepted. Recommendations deal with the means to operationalize this principle.

2. The regular schools of the Calgary Board of Education already, without further intentional integration, contain significant numbers of handicapped students. Resources to meet present needs are considered inadequate by many teachers and principals.

3. Successful integration requires time for thoughtful and comprehensive planning.

4. There will always be a need for some segregated facilities.

Recommendations are addressed to six different areas of need. The complete report lists 20 recommendations and 4 mentions of commendation.

A. The Need for Board Leadership and Development:

It is recommended that the Board develop and adopt: (1) a comprehensive statement of policy; (2) a statement of philosophy, rationale, goals, and objectives for integration; (3) a set of implementation guidelines for integration at all academic levels. (R.1)

The Board is commended for its accomplishments to date in implementing an adapted Cascade model, and in providing various specialized forms of service and assistance to approximately 8% of the student population. (C.2, C.3)

B. The Need for Individualized Planning for Integrated Students:

It is recommended that: (1) definitions of "handicap" which focus on educational needs rather than on student disability be developed and accepted, (R.2); (2) a review be made of current assessment procedures to ensure that they are congruent with the definitions (R.6); and (3) educational methods and monitoring processes congruent with the definitions be adopted. (R.7)

C. The Needs for a Longitudinal Impact Study:

It is recommended that the Board design measures for a longitudinal investigation of integrated handicapped students. (R.8)

D. The Need for Demonstration Schools:

It is recommended that a few demonstration schools be selected to serve as models for improved resource supports for integration activity. A model for resource support at each of the Cascade levels is presented. It is expected that principals of the demonstration schools will construct needs assessments to determine which resources are required in their own schools.

In-service training, instructional materials, reduced class size, teacher aides, school tutors, resource teachers and Learning Assistance Centres are included in the resource model. (R.10)

E. The Need for Improved Strategy in all Schools with Integrated Handicapped Students:

It is recommended that those schools which have integrated handicapped students but are not among the demonstration schools selected as models: (1) be assisted to develop procedures to monitor individual programs of students (R.12); (2) consider implementing orientation and readiness programs for students to prevent formation of negative attitudes (R.13); (3) consider implementing community orientation programs (R.14); (4) receive in-service training for principals and teachers of integrated classrooms. (R.15)

The principals, special class teachers and regular teachers in schools with integrated special classes are commended for their accomplishments in partial integration of the special class students. (C.4)

F. The Need for Continued Board Support of Special Education Services and of Integrated Education:

It is recommended that: (1) the Board continue to provide its present complement of specialized resource personnel (R.18); (2) that the Board undertake an internal review of the functions, required competencies and activities of its specialized resource personnel (R.19); (3) that the Board consider hiring additional resource personnel as an interim measure for the next two years. (R.20)
It is expected that the demonstration models of service to integrated classrooms may demonstrate patterns of referral and resource usage which differ from present patterns. Better information on resource usage should be available within two years.

COSTING PROGRAMS IN SPECIAL EDUCATION

Author: Dr. G. Loken, Associate Professor
Department of Educational Administration
University of Calgary

APPENDIX A: A STUDY OF THE INTEGRATION OF HANDICAPPED STUDENTS IN THE REGULAR SCHOOLS OF THE CALGARY BOARD OF EDUCATION

Commissioned by:

Calgary Board of Education
Education Centre Building
515 Macleod Trail SE
Calgary, Alberta
T2G 2L9

Produced by:

Canadian Institute for Research
109 Brentwood Professional Building
3501 Charleswood Drive NW
Calgary, Alberta
T2L 2C2

May 30, 1978

Partially Funded by the Planning and
Research Branch of Alberta Education

Abstract

The Canadian Institute for Research was commissioned in June 1977 by the Calgary Board of Education to study the extent and the effects of integration of handicapped children into the regular schools of the Calgary Public School System. Recommendations were requested concerning optimal levels of integration, and concerning costs of achieving these optimal levels.

Study recommendations were addressed to a need to rationalize and plan for support of the mildly and moderately handicapped children presently located in regular classrooms. Integration of children with severe handicapping conditions is recommended on the basis of assessment of each individual case. It is suggested that the Board implement prototype models of resource delivery to several integrated schools in the next two years.

The present paper focuses attention on the costs of components directly related to instructional services to integrated programs in special education. Basic public services available to all types of students in the system are not given special attention. The costs of components of instruction are analysed on a per pupil basis and compared with expenditures for regular students in order to set forth mean indices for various exemplary programs. This methodology of costing special programs is deemed to be useful in the budgeting process and in examining the adequacy of present revenue formulas.

Conclusions are presented related to the need to clarify the application of provincial grant regulations to integrated programs. It is suggested that unique costing of new teaching methods for integration will allow more precise allocation of resources in future years. It is predicted that, if costs per integrated pupil show the expected decrease as numbers of integrated pupils increase, the costs of integrated programming may eventually reach the same level as costs for the present segregated Special Education programs.

Members of the Study Steering Committee

Mr. G.L. Fowler, Chairman
Superintendent of Instructional Services
Calgary Board of Education
Education Centre Building, 515 Macleod Trail SE
Calgary, Alberta   T2G 2L9

Mrs. I.C. Martini, Trustee
Calgary Board of Education
Education Centre Building, 515 Macleod Trail SE
Calgary, Alberta   T2G 2L9

Mrs. D.B. Corbett, Principal
Albert Park Elementary School
1317 - 27 Street SE
Calgary, Alberta   T2A 0Y2

Dr. C. Rhodes, Education Consultant
Planning and Research Branch
Alberta Education
Devonian Building, 11160 Jasper Avenue
Edmonton, Alberta T5K 0L2

Mrs. M. Richardson, Chairman
Society for the Hearing Impaired
4235 - 53 Street NW
Calgary, Alberta   T3A 1V5

Dr. C.H. Sangster
Associate Superintendent of Student Services
Calgary Board of Education
Education Centre Building, 515 Macleod Trail SE
Calgary, Alberta   T2G 2L9

Members of the Research Staff

Principal Investigator

Dr. G.B. Jones, Vice-President
Canadian Institute for Research

Project Management

Dr. W.R. Unruh, President
Canadian Institute for Research

Dr. M.H. Nygaard, Vice-President and General Manager
Canadian Institute for Research

Ms. J.E. O'Connell, Senior Research Associate
Canadian Institute for Research

Ms. R.H. Driscoll, Senior Research Associate
Canadian Institute for Research

Special Project Consultants

Dr. P. Dahl, Associate Research Scientist
American Institute for Research
Palo Alto, California

Dr. G. Loken, Associate Professor
Department of Educational Administration
University of Calgary

Members of the Special Education Advisory Panel

Dr. G. Kysela, Associate Professor
Department of Education Psychology
University of Alberta

Dr. J. McLeod, Director
Institute of Child Guidance and Development
Department of Special Education
University of Saskatchewan

Dr. J.V. Van Tighem, Chief Superintendent (retired)
Catholic School Centre
Calgary, Alberta

Table of Contents

Page

Abstract i
Members of the Study Steering Committee ii
Members of the Research Staff iii
Other Reports iv
List of Tables vi
List of Figures vii

INTRODUCTION 1

NATURE OF THE COST ANALYSIS 2

METHODS AND PROBLEMS IN ESTABLISHING COSTS 4

FUNDING FORMULAS 7

ANALYSIS OF SPECIAL EDUCATION INSTRUCTION EXPENDITURES 9

COST IMPLICATIONS OF VARIOUS RECOMMENDATIONS 14

EXEMPLARY COSTING OF POTENTIAL PROGRAMS 16

PROVINCIAL REVIEW SOURCES 21

CONCLUSIONS AND RECOMMENDATIONS 22

Schedule A: 1978 Regulation Grants for Special Education. Alberta Education 25
Schedule B: 1978 PAB Coding for Special Education. Calgary Board of Education 34
Schedule C: CBE Expenditures on Special Education 36
Schedule D: CBE Expenditures on Basic Education--Decade Trends. 38
Schedule E: Analysis of 1978 Final Budget. Calgary Board of Education 40
Schedule F: Projection of Enrolment 1977-1978. Calgary Board of Education 42
Schedule G: Guidelines for the Payment of Special Education Teaching Position Grants, June 1978. Alberta Education . . . 44
Schedule H: Guidelines for the Establishment and Operation of Special Programs for Learning Disabled Children. Alberta Education 57
Schedule I: Cascade Instructional Models 64
Schedule J: Recommendations: A Study of the Integration of Handicapped Students in the Regular Schools of the Calgary Board of Education 68

List of Tables

Page

Table 1: Cost Indices in Selected Special Education Programs: State of Minnesota 5

Table 2: 1978 Estimated Budget for Special Education: Calgary Board of Education 10

Table 3: Percentage Analysis of 1977 Instructional Expenditures in Special Education by Major Categories: Calgary Board of Education 11

Table 4: 1978 Special Program Instructional Costs for Enrollments and Classrooms: Calgary Board of Education 12

Table 5: Exemplary Mean Indices for Instructional Services in Special Education (Based on 1978 Budget Data) 13

Table 6: Calculation of Instructional Costs For Regular (R) and Special (S) Students 17

Table 7: Exemplary Costing of Proposed Program Levels 20

List of Figures

Page

Figure 1: Components of Special Education Costs 3

INTRODUCTION

Despite a pattern of relatively stable enrollments in the total picture for Alberta and Calgary, programs for handicapped children have expanded rapidly in this province in this decade. Parents and educators have become increasingly aware of the number of handicapped children who must be served. With this rapid increase in special education programs, coming as they have during a period of general fiscal restraint, questions of cost are clearly of paramount importance. Thus, in many areas controversies in special education have tended to center on budget issues.

In Alberta, the present government has provided funds for handicapped children enabling more equal educational opportunities for all children. Special education teaching position grants now range from $10,050 to $19,875. Grants for retarded and severely disabled pupils range from $2,400 to $3,240 according to classification. The Learning Disabilities Fund grants for the purpose of diagnosing and assisting pupils with perceptual and learning disorders are now at $17.80 per pupil to a maximum of $108,000 for any one system. Regulations in full respecting special education programs are prepared annually by Alberta Education. See Schedule A for the latest schedule.

It must be pointed out that these current grants for special education are geared to segregated programs for the handicapped. Although considerable ministerial discretion is implied, clarification of the application of these regulations to programs involving varying degrees of integration is required.

It is the purpose of this study to propose a methodology for determining the costs of more integrated approaches in the education of the handicapped. To do so it has been deemed useful to exemplify by using 1978 Budget data because this is the most recent data within the Calgary system pertinent to the growing program in special education.

NATURE OF THE COST ANALYSIS

In endeavouring to analyse costs for new or different approaches to special education, the focus must be on the cost of those services specifically and uniquely provided for the handicapped children. Here the categories of expenditure are the various student services in the different types of instructional programs proposed for operation in the system. Each type of service calls for unique resource inputs.

Costs shared equally by all students in the school system do not require special attention in this study. Under the School Foundation Program Fund regulations, expenditures for general administration, transportation and capital or debt services are largely provided for and thus are essentially recoverable. Detailed data on any of these components is available under PAB unique coding within the Calgary system.

Where changes in the special education program necessitate renovations and alterations in existing school facilities to accommodate the needs of handicapped children or where additional equipment is required, such costs can normally be assigned to capital budgets. Where additional support personnel or special in-service training is required or additional transportation for the severely handicapped is recommended, such cost components should be considered in the cost analysis on a unit cost basis. The extent of such activities is subject to policy and budget decisions.

Because the implementation of new or different programs is dependent upon policy decisions by the Board, the cost analysis aims to focus on principles and patterns applied on a unit basis as related to various special programs. Where possible and helpful, indices will be proposed so that estimated costs of special education programs can be set forth in relation to regular program costs. A weighted system can be useful since our province uses an overall educational finance program.

The aim of this analysis is to suggest a methodology for budgeting expenditures for recommended programs in special education. When and if more current or relevant data becomes available, such information can be utilized to provide better budget estimates. This analysis of cost provides no judgement as to the efficiency or effectiveness of the recommended programs. See Figure I for an analysis of the components of special education costs. Schedule B sets forth the present coding system of the Calgary Board of Education for Special Education.

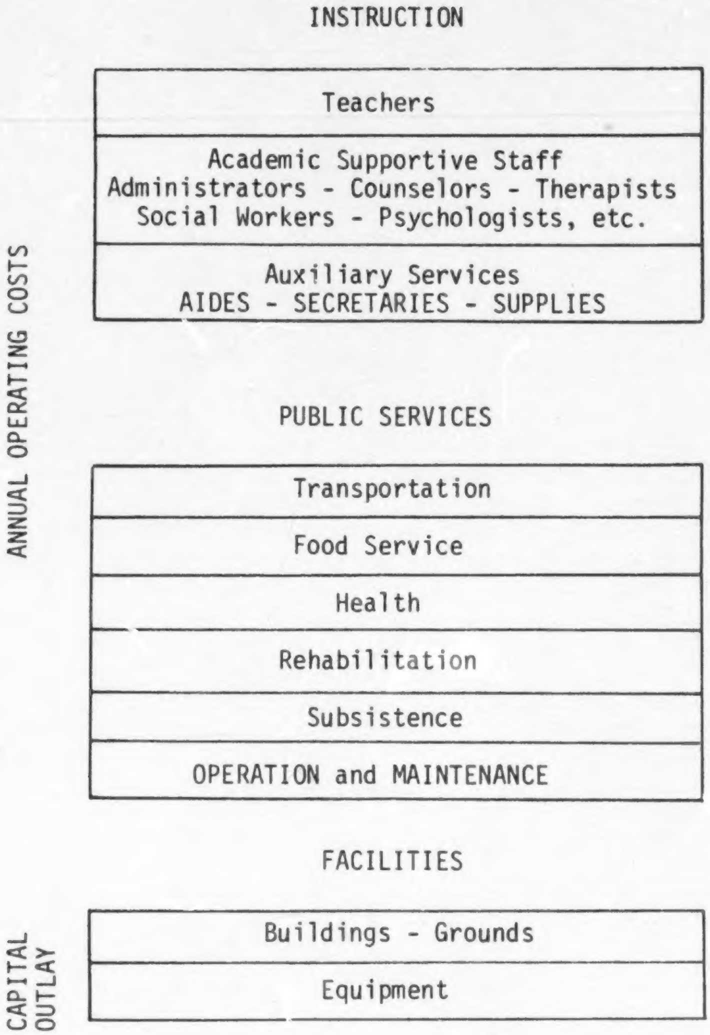

INSTRUCTION
Teachers
Academic Supportive Staff
Administrators - Counselors - Therapists
Social Workers - Psychologists, etc.
Auxiliary Services
AIDES - SECRETARIES - SUPPLIES
ANNUAL OPERATING COSTS
PUBLIC SERVICES
Transportation
Food Service
Health
Rehabilitation
Subsistence
OPERATION and MAINTENANCE
FACILITIES
Buildings - Grounds
Equipment
CAPITAL OUTLAY

Figure 1

Components of Special Education Costs

METHODS AND PROBLEMS IN ESTABLISHING COSTS

In general, funding needs for education can usually be budgeted for in one or more of the following ways:

1. *Empirical analysis of historical data to project current and future needs with due regard to escalation factors, e.g., inflation, salary changes, etc.* Unfortunately, past expenditures may be the result of expenditure ceilings, political caprice, traditional funding patterns, or other exogenous factors.

2. *Expert determination of emerging needs and selected specific approaches in terms of quantifiable resource components and unit costs or indices thereto.* This method is not tied to the past but sets forth that which ought to exist. The results are only as good as the assumptions used to generate them.

3. *Early resolution of the political process whereby provincial grant levels and local supplementary provisions are jointly stipulated which are deemed adequate to support the prescribed programs.* Unfortunately, there is little reliable information on special education costs and particularly so for programs stressing integration as opposed to segregation. American studies are not too valid for Alberta.

In the case of mainstreaming educational programs for the handicapped, there is insufficient historical data in Alberta to provide the base for an objective empirical approach. Some American studies are both limited and probationary. One such study, based on six selected Minnesota school districts using different delivery systems within categories of exceptionality, produced cost indices as shown in Table 1. This study did nothing to determine what delivery mode was most efficient in terms of cost, but indicated that mainstreaming may be more expensive than many have predicted. Finally, this study of the Minnesota situation may have little applicability to the Canadian situation because of differing approaches to such factors as curriculum content, pupil organization, teacher qualifications and utilization, resource provision, special activities, administrative structures and organization of the school year.

In order for experts to forecast costs of new approaches, recommendations and assumptions undergirding new programs must be set forth so clearly that the total package can be fully comprehended. When numerous variables must intersect, a pilot project could be most helpful. If all handicapped children are to be educated in their least restrictive environment, then, in order to determine costs

Table 1

Cost Indices in Selected Special Education Programs:
State of Minnesota

Delivery System	Median Indices
Regular Classroom	1
Regular Classroom with Special Consultant	1.86
Regular Classroom with Itinerant Teacher	1.50
Regular Classroom with Resource Room	2.00
Part-time Special Education Class	1.66
Self-contained Classroom	1.67
Homebound or Hospitalized Instruction	1.34

Source: Alfred L. Clemmons, "An Assessment of Cost Variations in Selected Exemplary Special Education Programs in Six Selected Minnesota School Districts." Unpublished dissertation, University of New Mexico, 1974.

accurately in the professional accounting sense, it would require observing and recording the resource consumption of each individual exceptional child. Adding to the problem of accounting is the trend away from the conventional classroom to individualized programs, flexible student grouping patterns and differentiated staffs. In short, the trend is to a flexible delivery system directed by professional judgement based on: (1) the assessment of student needs; (2) the prescription of resource configurations and teaching strategies; (3) the isolation of individual cost components, and; (4) the computation of costs with due regard for escalation factors from year to year.

This is no simple task for special education programs have come to mean "equal access to differing resources for differing objectives." In other words, the goals established for each child are different, based on each child's needs and potential. The achievement of differing objectives for each child requires varying the amount and mix of resources directed to each child.

If handicapped children are to be educated in a least restrictive environment, much careful research is required to understand the resource configuration and requisite costs of delivery systems designed to facilitate the least restrictive learning environment. Finally, such research needs the endorsement of government policies so that provincial funding formulas and grants more adequately reflect the differential costs of educating the handicapped child in the least restrictive environment. However, it must be recognized that the sequence of steps to follow are: (1) programming; (2) cost determination; (3) level of funding consistent with resources; and (4) funding formulas. Individual program costs and their extent must be known before the total costs of special education can be calculated or projected.

FUNDING FORMULAS

Costing formulas for mandated programs cannot be determined without reference to all other factors -- whether legal, political, social or educational -- that interact with operation. Nevertheless, it is useful to examine various conceptual models that have been identified in providing financial support for special education.

Weighted Formula. Under a weighted system, the local district is reimbursed on the basis of a multiple of regular per pupil expenditures which usually varies according to the type of disability. Florida uses this approach since it has an overall educational finance plan for the support of education. Table 1 of this study provides a further example of this approach.

Percentage. Under this formula, a percentage of the full costs incurred by a board in providing education of handicapped children is assumed by central authority. In Wisconsin, consultants from the State Department of Public Instruction approve the costs of teachers' salaries, pupil transportation, special books, equipment, and other items necessary for the education of handicapped children. The state then pays 70 per cent of these approved costs, with a ceiling of $300 per class for special books and equipment.

Personnel. Under a personnel formula, the province would provide funds to local districts to offset the costs of hiring specialized staff. For example, Alberta provides variable grants depending upon speciality of teaching position. In Illinois in 1971-72, the state reimbursed a maximum of $5,000 for special professional positions and a maximum of $2,000 for non-certificated personnel.

Straight Sum. Under a straight sum funding formula, the government reimburses local districts a fixed amount that varies according to the type of handicap. In Alberta, amounts that are paid depend upon age and type of handicap and range from $2,400 to $3,240 per pupil.

Excess Cost. Under an excess cost formula, school districts compute the cost of educating a child in the districts regular program. The difference is then fully or partially reimbursed by central authority. Pennyslvania among others uses this approach.

Unit Cost. Under a unit financing procedure, school districts are reimbused a fixed sum for each designated unit of classroom instruction, administration and transportation. In Ohio, for example, the state prescribes a pupil-teacher ratio for the various categories of handicapped children. The total number of children in each category is then divided by the prescribed class size to arrive at the number of "units" in each category of handicap. Reimbursement to local districts includes a set amount of money for a teacher and the other approved expenses.

The funding formulas are basically only conceptual models or approaches. Funding procedures rarely fall neatly into just one of the six categories. In most cases, the different formulas would produce different results. The full impact of a particular funding formula cannot be ascertained without reference to the policy decisions that precede it and the operational practices that surround it.

The chief value of being aware of the variety of approaches to funding formulas is to be able to recommend a particular approach for new or pilot programs for which there is little data or experience. For example, if the Calgary Board of Education elected to pilot a very different approach to a program in special education, it could propose the percentage approach and negotiate the portion to be financed locally. After careful monitoring of the costs of this special program, the nature of the support could be regularized eventually.

ANALYSIS OF SPECIAL EDUCATION INSTRUCTION EXPENDITURES

In the total program of education, the Calgary Board of Education spends 73.4 per cent for instructional services, 3 per cent for overall administration, 14.4 per cent for operation and maintenance, only 1.7 per cent for transportation and 7.5 per cent for debt services. From this general analysis, it is obvious that the most critical area is instructional services. See Schedule D for 1977 data.

Similarly, the critical cost areas in special education are the direct instructional services provided in each program. Costs shared equally by all students in the system do not require special attention, e.g., general system administration, operation and maintenance, transportation of pupils and debt services.

Based on program accounting budgeting, the Calgary Board of Education has devised a detailed coding system as shown in Schedule B. This present coding system does not precisely allocate the costs of special education programs in at least two important areas: General Instruction and Social, Psychological and Supportive Services. Therefore, total special education expenditures for 1978 have had to be estimated as shown in Table 2 which is derived from total budget data set forth in Schedule C.

When the direct cost of special education in the area of instructional programs is analysed, it becomes apparent that salaries for teachers are by far the major category of expense. As shown in Table 3 for 1977, 92.5 per cent was spent on certified instructors, 2.9 per cent on uncertified staff, 4.2 per cent on supplies and equipment and only 0.4 per cent of special travel allowances, primarily for staff.

It is calculated that 1978 expenditures in special education will evidence similar percentage distribution with overall increases in total budget of about 11.6 per cent. Table 4 indicates the 1978 budgetary provision for each program, the costs per pupil and per classroom. Overall for 1978, there are 1,270 students classified in special education programs at a projected average cost of $2,724 The projected average cost for 134 classrooms is $25,813 per classroom. These figures do not include any expenditures for general student services or special overall support services, but include only direct instructional services in the classroom.

As shown in Schedule E, 1978 Final Budget Analysis, the average expenditure overall for instructional services is $1,380

Table 2

1978 Estimated Budget for Special Education:
Calgary Board of Education

Code	Categories	Expenditure	Percentage
500-501	Instructional Administration of Special Education	$ 216,000	5.1%
511-571	Special Education Programs		
	511 Educable Mentally Handicapped	988,000	
	521 Hearing Impaired	350,000	
	531 Visually Impaired	128,000	
	541 Trainable Mentally Handicapped	838,000	
	560-564 Hospital, Institutional and Homebound	687,000	
	571 Learning Disabled	468,000	
	Sub-Total	$ 3,459,000	81.5%
720-727	Social, Psychological and Supportive Services		
	723 Attendance Services	10,300	
	725 Consulting Psychiatrists	3,300	
	727 Learning Assistance Centre	324,900	
	721 Psychological Services	83,000	
	726 Speech Pathologists	59,700	
	724 Visiting Teachers	90,300	
	Sub-Total	$ 571,000	13.4%
1978 Total Budget for Special Education		$ 4,246,000	100%

Source: Estimated from 1978 Budget data by administrative officers of the Calgary Board of Education.

Table 3

Percentage Analysis of 1977 Instructional Expenditures In Special Education by Major Categories: Calgary Board of Education

Special Program	Instructors	Uncertified Staff	Supplies and Equipment	Special Travel
Educable Mentally Handicapped	97.0%	-	2.8%	0.2%
Gifted Children	82.1%	8.4%	7.6%	1.9%
Hearing Impaired	80.1%	-	19.0%	0.9%
Visually Impaired	93.1%	1.9%	3.9%	1.1%
Trainable Mentally Handicapped	90.4%	7.0%	1.6%	1.0%
Hospital, Homebound, Institutional	95.9%	2.3%	1.5%	0.3%
Learning Disabled	92.6%	4.3%	3.0%	0.1%
All Programs Above	92.5%	2.9%	4.2%	0.4%

Source: Calculated from computer print-outs of 1977 Expenditures.

per regular pupil or $33,438 per average classroom within the total system of the Calgary Board of Education. The average cost for direct instructional services in the various special education programs were set forth in Table 4. By comparing these special costs with the overall cost within the total system, it is possible to calculate mean indices for each particular program in special education. These calculations are exemplary because they are based on 1978 budget data and are intended to set forth a methodology for a cost analysis of expenditures in special education in relationship to overall or average costs within the system for instructional services.

It is important to note again that costs for administration, operation and maintenance, transportation and debt services or capital are deemed to be essential public services available more or less on an equal basis to all students as shown in Figure 1. Overall these

Table 4

1978 Special Program Instructional Costs for Enrollments And Classrooms: Calgary Board of Education

Special Education Program	1978 Budget Provision	Total Pupils and Cost Per Pupil	Pupils Per Class	Total Classes and Cost Per Class
511 E.M.H.	$ 988,000	474/$2,084	10.8	44/$22,455
521 Hearing	$ 350,000	125/$2,800	15.6	8/$43,750
531 Blindness	$ 128,000	14/$9,143	4.7	3/$42,667
541 T.M.H.	$ 838,000	273/$3,070	8.3	33/$25,394
560-564 Place Bound	$ 687,000	228/$3,013	8.8	26/$26,423
571 Learning Disabled	$ 468,000	156/$3,000	7.8	20/$23,400
Overall Calculations	$3,459,000	1270/$2,724	9.5	134/$25,813

*To these costs must be added the administrative costs of the Department of Special Education and social, psychological and supportive services.

Source: Calculated from Student Services Enrollment May 1978 Department of Special Education and 1978 Budget of the Calgary Board of Education.

costs are very much lower than the expenditures on instructional services -- the area of most concern when analysing the extra costs of special education.

In the case of special education programs, there are two categories of costs which are extra and particular to these programs:

1. Administration of the Department of Special Education, plus certain general costs. The 1978 budget here is $216,000 for an estimated 1,270 pupils, or $170 per pupil as estimated by administration.

2. Social, psychological and supportive services especially designed to serve the students in special education programs. The 1978 budget here is $ 571,000 for an estimated 1,270 pupils or $ 450 per pupil.

Thus, these above costs add $ 620 per pupil or $5,873 classroom on the average. These costs have also been added in Table 5 and thus have been included in the calculation of the mean indices relative to overall classroom instructional service expenditures.

Table 5

Exemplary Mean Indices for Instructional Services in Special Education (Based on 1978 Budget Data)

Coded Special Education Program	Special Education Instructional Services Costs Per Pupil[1]	Instructional Services Costs Per Regular Pupil	Mean Indices
511 E.M.H.	$2,084+$620 = $ 2,704	$ 1,380	1.96
521 Hearing	2,800+ 620 = 3,420	1,380	2.48
531 Blindness	9,143+ 620 = 9,763	1,380	7.07[2]
541 T.M.H.	3,070+ 620 = 3,690	1,380	2.67
560-564 Place Bound	3,013+ 620 = 3,633	1,380	2.63
571 Learning Disabled	3,000+ 620 = 3,620	1,380	2.62
Overall Calculations	$2,801+$620 = $ 3,421	$ 1,380	2.48

---

[1] Includes added costs for general, administration and support services totalling $620. in these categories.

[2] Index affected by a limited enrollment of only 14 students.

Source: Calculated from data in Table 4 and 1978 Final Budget Analysis in Schedule E.

COST IMPLICATIONS OF VARIOUS RECOMMENDATIONS

The recommendations cited in this section are those contained in the final report of the study by the Canadian Institute for Research. They are reproduced in full at the back of this report. The first seven recommendations are provisional or conditional, requiring statements yet to be formulated by the Board on policy and guidelines, publicity, orientation and training, definitions of handicap, selection of measuring instruments to identify and assess handicapped pupils and prescription of revised programs. It is here assumed that the Board and its administration can implement these seven recommendations within current resources and by available specialized leadership in the Department of Special Education. In short, special or new allocation of resources does not seem to be required to implement the first seven recommendations.

Recommendation eight requires a study in the future of an integrated program yet to be fully implemented. Without specific terms of reference, cost figures could only be speculative at the present time.

However, recommendations nine and ten propose that selected schools be phased into an integrated program for handicapped children on a demonstration or model basis requiring improved resource support and particular attention. Here it is possible to set forth exemplary costing procedures for the various proposed programs recommended for approval by the Board.

Recommendations 11 to 14 inclusive are applications of recommendations three to six to the particular phased-in demonstration schools. Again, it is assumed that the specialized expertise of the Department of Special Education in consultation with the selected model schools can carry out these functions with present staff, established resources and intensified cooperation.

Recommendation 15 requires particular in-service training in an intensified on-going program. Here some cost figures can be set forth. Recommendation 16 is futuristic and requires professional judgement and Board approval in extending the program of integration. When and if this occurs, better cost data on the demonstration schools should be available to determine expenditures involved in extending the program of integration to more schools.

Recommendations 17 and 18 propose that appropriate segregated programs and the present social, psychological and support services be retained. Costs here are available from present financial reports and the current budget. See Schedule C. Escalation factors can be estimated.

Recommendation 19 proposes an internal review of specialized resource personnel. It is assumed that this function will be assumed by program evaluation and special education personnel under the administration of the chief superintendent.

Recommendation 20 proposes that the Board hire additional numbers of specialized personnel. Unit costs for these various positions are already known and can readily be estimated from negotiated collective agreements. It is worth noting that Alberta Education has authorized the funding of another 120 positions for special education for the coming year.

In review, it is concluded that recommendations nine, ten, fifteen and twenty are of special concern in examining the costs of further integration for the Calgary Board of Education.

EXEMPLARY COSTING OF POTENTIAL PROGRAMS

Because of the general nature of most recommendations and the fact that these are contingent upon policy decisions by the Board and precise operational definition by administration, the costing must be exemplary and illustrative of useful methodologies. Any figures for total costs dependent upon the extent to which any new programs may be authorized and implemented.

In order to illustrate unit costing and costing procedures, data and assumptions will be anchored in three principal sources:

1. Detailed documents of the CIR Report.
2. CBE 1978 Operating Budget data.
3. Alberta Education Grants and Guidelines.

Costs are calculated on a per pupil basis for each of the resource components required to implement typical levels of instruction proposed on page 64 of this Report of the CIR study. It is important to note again that the focus of the cost analysis is on instructional components and not on public services common to all students.

When such costs are set forth on a per pupil basis and compared to average overall costs for general instruction, mean indices can be exemplified for each proposed level. Such indices can then be compared to the indices for present programs in special education. Above all, these indices should facilitate budget allocations and even revenue formulas on a more rational basis. As better cost data becomes available, such data can be utilized in the methods of cost analysis.

Excluding special education, early childhood services and continuing education, the 1978 budget for overall regular instruction is $109,912,000. Since there are 79,656 regular enrollments apart from the excluded categories, the average instructional cost per pupil in the system is $1,350. As shown in Table 5, the 1978 budget proposes average expenditures of $3,421 per pupil for the present programs for the handicapped. The calculated mean index is 2.48 for special classes as compared with regular classrooms having no handicapped students. Obviously, as also shown in Table 5 segregated programs are very costly. The question remains, will integrated programs be equally expensive on a per pupil basis? To answer this question, exemplary mean indices for typical proposed programs are set forth in Table 6 using data sources described above.

To make comparisons, it is necessary to set forth the

Table 6

Calculation of Instructional Costs For Regular (R) and Special (S) Students

Pupil Type	Component	Budget Cost	Pupils	Average Cost per pupil
R	Total Instructional Services	$109,912,000	79,656	$1,380
R	Total Salaries & Benefits	103,158,000	79,656	1,295
R	Total Learning Resources	3,869,000	79,656	49
R	Other Internal Services	645,000	79,656	36
R	1/4 Teacher Aide	8000÷4 = 2000	25	80
S	Total Instructional Services	$ 6,486,000	1,270	5,107
S	Total Learning Resources	131,000	1,270	103
S	Learning Resources for EMH, LD and TMH Students	60,000	903	66
S	Learning Resources for Sensory Handicapped	45,000	139	324
S	Half-Time Teaching Aide	8000÷2 = 4000	18	222
S	Resource Teacher used 10% of time	per pupil cost 1,295÷10	-	130
S	Special in-service training	12,700	1,270	10
S	General Student Services	$ 216,000	1,270	170
S	Special Support Services	571,000	1,270	450

Source: 1978 Operating Budget, Calgary Board of Education, June 1978 figures.

resource allocation for each of the components in the regular instructional program. These are by major categories as follows:

1. Classroom Personnel. Resource personnel are of two types -- certificated and non-certificated and under collective agreements both require salaries and employee benefits. The 1978 average budget for the system (excluding special education) is $1,295 per pupil.

2. Learning Resources. Learning resources include outside services, supplies and materials, textbooks, media materials and equipment. The 1978 average budget for the regular system is $49 per pupil.

3. Other Provisions. Other provisions include special transportation and maintenance or repair within programs. The 1978 average budget for the regular system is $36 per pupil including general support services.

As proposed in the model in Schedule I, additional resources will be assigned to the programs in special education. Overall, these areas are calculated in Table 6 on the preceding page.

Further explanation of the calculations in Table 6 are:

1. Instruction/Personnel. These can be extra teachers, resource teachers, a teaching aide or some other person covered by agreements. In each case, a designation must be made so that cost on a per pupil basis can be calculated. For example, the cost of a half-time teaching aide would be $4,000. In a classroom of 18 students, the cost per student would be $222.

2. Special Learning Recources. Education of the handicapped requires special materials and specific equipment uniquely designed to meet particular needs. In Calgary, $66 per student is provided on the average in EMH, TMH and LD programs in total. When the sensory handicapped are included, the overall average increases to $103 per pupil. Obviously, a calculation must be made for each level in the model.

3. Reduced Class Size. Because about 95 per cent of instructional costs is related to classroom personnel, any reduction in the pupil/teacher ratio has pronounced cost implications. Alberta Education has set forth enrollment criteria for special education teaching positions and provided extra grants to reflect the reductions in class sizes. Thus, if the classroom personnel cost per pupil is $1,295 for a class of 25, if the class size is reduced to 18, the cost per pupil in this category increases to (1,295 X 25) ÷ 18 = $1,799 per pupil.

4. In-Service Training. Any new program, but especially one as complex as special education requires special insights, cooperative strategies and professional direction. For example, two professional days per year could be set aside for developing skills in diagnosing and assessing handicap. Ten days per year could be set aside for instructional methods, classroom management and effective utilization of resource personnel. The cost of such professional days must be estimated and calculated on a per pupil basis. For example, if the total cost of twelve professional days was $12,000

and there were 1,200 handicapped students, the cost per student would be $10. Such costs could be included under the General Student Services coded 500 under PAB and listed as five below.

5. General Student Services. This component provides educational and administrative leadership for programs in special education. The 1978 cost per student is estimated to be $170.

6. Special Support Services. Special education requires social, psychological and supportive services of a very specialized nature. The 1978 cost per student is estimated to be $450.

7. Other Provisions. Unique provisions for any particular special program could be individually costed and included under this heading as an extra cost component.

Using the components described above, the costs per pupil for proposed programs in special education are exemplified in Table 7. Mean indices are illustrated for each program.

Table 7

Exemplary Costing of Proposed Program Levels

Level	Program Description	Classroom Enrollment	Costing of Instructional Components On A Per Pupil Basis		Exemplary Mean Indices
I	Regular Class with no special provisions for handicapped.	25	1. Regular Instruction - 25 pupils	$1,295	1
			2. Regular Learning Resources	49	
			3. Other Provisions	36	
			Total per pupil	$1.380	
IIA	Regular Class with internal instructional assistance and extra resources.	18	1. Regular Instruction - 18 pupils ($1295 x 25 ÷ 18 = $1/99)	$1,799	1.61
			2. 1/2 Teacher Aide 4000/18	222	
			3. Additional learning resources	66	
			4. Resource Teacher (10% of $1295)	130	
			5. In-service programs	10	
			Total per pupil	$2,227	
IIB	Regular Class with external instructional assistance and direction and support.	12	1. Regular Instruction - 12 pupils (1295 x 25 ÷ 12 = $2,698)	$2,698	2.55
			2. Resource Teacher (10% of time)	130	
			3. General Student Services from Department of Special Education	170	
			4. Support Services package	450	
			5. Additional learning resources	66	
			6. In-service programs	10	
			Total per pupil	$3,524	
IIC	Regular class with special assistance re sensory handicap.	8	1. Regular teacher - 8 pupils (1295 x 25 ÷ 8 = $4,047)	$4,047	3.81
			2. Resource Teachers (20%)	260	
			3. Special resources - sensory	324	
			4. General Student services	170	
			5. Support Services package	450	
			6. In-service programs	10	
			Total per pupil	$5,261	
III	Special class part-time	6	1. Special Teacher - 6 pupils (1295 x 25 ÷ 6 = 5396) (70%)	$3,772	3.55
			2. Resource Teachers (30%)	390	
			3. Special resources (average)	103	
			4. General student services	170	
			5. Support services	450	
			6. In-service programs	10	
			Total per pupil	$4,895	
IV	Special class full-time	6	1. Special Teacher - 6 pupils (1295 x 25 ÷ 6 = 5,396	$5,396	4.92
			2. 1/2 Teacher Aide 4000/6	667	
			3. Special resources (average)	103	
			4. General student services	170	
			5. Support services	450	
			6. In-service programs	10	
			Total per pupil	$6,796	

Source: calculated from Table 6.

PROVINCIAL REVENUE SOURCES

In Alberta, regular grants under the School Foundation Program Fund provide basic support for all approved instructional programs and for all types of students as follows:

1.	Grades I - VI inclusive	$ 1,049
2.	Grades VII - IX inclusive	1,100
3.	Grades X - XII inclusive	1,260

The above provisions apply also to the students classified as being handicapped. In addition each severely handicapped student may be eligible for a maximum grant of $4.00 per day for transportation grants payable to the Board. There is also a grant of 3 per cent of the above instructional grants plus the transportation grants. For 1978, the possible revenues to the Calgary Board of Education are estimated at about $1,200,000 for some 1,270 handicapped students for instructional services.

Under the School Grants Regulations there are supplementary provisions for special education. See Schedule A. For 1978 these are estimated as follows exclusive of any grants for handicapped students in the Early Childhood programs:

214.2 Special Education teaching positions	$2,589,000
Grants on behalf of some 800 eligible students	2,400,000
Learning Disabilities Fund	104,000
Educational Opportunities Fund	207,000
Estimated Total under special grants	$5,300,000

Thus from both the SFPF and Special Grants revenues are estimated to total $6,500,000. This compares favourably with the 1978 budget of $6,486,000 for General Services. If these estimates are proven to be reasonably close, the analysis of revenues suggests a very favourable level of support for the handicapped in Alberta.

CONCLUSIONS AND RECOMMENDATIONS

1. Grants for Special Education under Alberta Education Regulations provide for some ministerial discretion. The Guidelines for the Payment of Special Education Teaching Position Grants also provide for some flexibility. However, it is recommended that the application of current regulations to special education programs involving varying degrees of integration be fully investigated to assure adequate provincial funding. See Schedule A for present regulations.

2. Grants under the School Foundation Program Fund provide a base for overall services to all pupils in such categories as general overall administration, operation and maintenance of facilities, transportation, debt services and capital improvements. The areas of major concern in costing special education programs are the components of instructional services. Therefore, it is recommended that PAB coding for each special education program focused on basic components of instruction such as classroom personnel, learning resources, in-service training, general student services and overall special support services using unique codes prefaced by school location coding. See Appendix B for present coding.

3. When demonstration models of integrated approaches to special education needs are established, new patterns of resource allocations and teaching strategies must be applied. It is recommended that such programs be uniquely and particularly costed so as to provide better information on resource usage and consequent expenditures for demonstration integrated programs. It is further recommended that the sequence of steps to be followed be: (1) programming; (2) cost determination; (3) adequate level of funding consistent with resources; and (4) establishment of provincial funding formulas appropriate to valid integrated approaches. See page 6 of this report.

4. Some pilot programs in special education may not lend themselves to present regulations and guidelines established by Alberta Education. Therefore, it is recommended that other funding formulas be explored with the Minister so as to assure recognition for such programs either under special approval or the present Educational Opportunities Fund. See pages 7 and 8 of this report.

5. The Calgary Board of Education and its administration have shown leadership in establishing a Department of Student Services and have initiated exemplary programs in several important directions. The Cascade model has been endorsed. It is recommended that present leadership expedite resolution of recommendations 1 to 8 inclusive and 11 to 14 inclusive under direction and approval of

the Board. It is recommended that this can be done without special or unusual costs but as an ongoing aspect of developing better programs year by year on the basis of adequate evaluations. See pages 12 and 13 herewith.

6. The study has estimated costs of present and potential programs on a per pupil basis and compared these costs to overall costs for general instruction so as to establish mean indices for each program. It is recommended the concept of indices be further refined to facilitate budgeting processes and cost comparisons and to promote the establishment of better funding formulas in the future based on more precise cost data.

7. The nature of the recommendations in the Final Report has not permitted the setting forth of total cost figures for the system based on quantitative data. Also a program of full integration has been deemed to be impractical. The extent of new programs under new concepts is subject to policy decisions by the Board. As additional personnel are added as required, the costs here can be calculated by reference to the collective agreements and derived on a unit basis.

The investigation has indicated that there is no pressing demand for changes in facilities or equipment but rather for more personnel. It is noted in this study that such costs, as well as transportation costs, generally are provided under basic public provisions for all students and under School Foundation Program Fund regulations. Often, facility and equipment costs can be recovered under capital provisions. However, it is recommended that unique codings be utilized so that specific data on any of these categories can be extracted as required for specific cost analyses.

Study and discussion by all involved with the implementation of phased-in integration programs should enable more precise costing of in-service training and positive utilization of established professional days. This study recommends that $10 per pupil be budgeted as a minimum for such training.

This study has focused on the costs of the various components in instructional services on a unit basis. The comparison of exemplary indices for proposed levels of programs with median indices for present programs in special education based on 1978 budget data and the cost analysis in general suggests several significant possibilities.

8. As more EMH students are integrated into regular programs, the costs per student for general or support services will decrease. However, as shown in Table 7, pupil/teacher ratios should be carefully examined in calculating instructional costs.

9. Better allocation and utilization of resource components for the moderately and sensory handicapped may increase costs initially. However, as the system gains experience and a sense of direction in the new programs under comprehensive, communicated, and cooperatively integrated policies and guidelines, the programs in Special Education will become more efficient costing less per unit and more effective in goal accomplishment.

10. Costs per student should decrease as the numbers of pupils in the various levels increase and as classroom personnel gain insight and experience. For example, present costs for the visually handicapped are extremely costly because of the nature of the program but also because the enrollment here is very low. Overall, the costs for integrated programs should not be more expensive than are the present segregated programs. For both types of programs it would appear from this study that the exemplary weighted mean index is about 2.5. In the future it can be assumed that escalation factors apply equally to all programs so that this ratio will remain reasonably constant. Thus, programs in special education tend to average out at a cost which is 2.5 times as expensive as the programs to regular students.

Schedule A

1978 REGULATION GRANTS FOR SPECIAL EDUCATION.

Alberta Education.

PART I

(Special Education)

5 (1) Subject to subsection (2), for each full time special education teaching position approved by the Deputy Minister and in which a teacher is employed by a board exclusively for teaching special education extension students or pupils requiring special education, a grant may be paid to the board in each year according to the following:

Speciality of Position	Rate per Position
(a) educable mentally retarded	$10,050
(b) learning disabled	10,050
(c) socially maladjusted	10,050
(d) resource room	10,050
(e) language deficit	10,050
(f) trainable mentally retarded	12,960
(g) institutional	12,960
(h) homebound	12,960
(i) severely learning disabled	13,825
(j) hard of hearing	13,825
(k) low vision	13,825
(l) speech disorders	13,825
(m) specified special school	13,825
(n) braille	15,875
(o) deafness	15,875
(p) deafness (total communication program)	19,875

(2) Where a dispute arises as to which specialty is applicable to a position under subsection (1) the matter shall be referred to the Minister whose decision is final.

6 (1) A grant may be paid to a board in respect of a person

(a) who is trainable mentally retarded, severely learning disabled, or socially maladjusted to the extent that he cannot be educated in a school of the board,

(b) who is under the jurisdiction of the board,

(c) who would be a pupil or special education extension student if he was being educated in a school of the board, and

(d) in respect of whom a grant is paid by the board to an organization or agency which, with the approval of the Deputy Minister, provides special education services under section 138(b) of The School Act.

(2) A grant may be paid under subsection (1) in each year according to the following:

Age of Person on Sept. 1 of the School Year	Amount Per Person Under Subsection (1) Trainable Mentally Retarded	Severely Learning Disabled	Socially Maladjusted
(a) at least 5 years, 6 months but less than 12 years,	$2,400	$3,040	$1,820
(b) at least 12 years but less than 15 years,	$2,450	$3,090	$1,870
(c) at least 15 years but less than 24 years,	$2,600	$3,240	$2,030
(d) 24 years or older	$1,300		

(3) Notwithstanding subsection (2)

(a) where the grant paid per person by a board to an organization or agency under subsection (1) exceeds the grant per person under subsection (2)(a), (b) or (c) by less than $180 the amount of grant per person payable under subsection (2)(a), (b) or (c) shall be the amount determined from the following formula:

$$\frac{\text{Payment per person by board}}{\$180 + \text{Grant per person under subsection (2)(a), (b) or (c)}} \times \text{Grant per person under subsection (2)(a), (b) or (c)}$$

(b) where the grant paid per person by a board to an organization or agency under subsection (1) exceeds the grant per person under subsection (2)(d) by less than $90, the amount of grant per person payable under subsection (2)(d) shall be the amount determined from the following formula:

$$\frac{\text{Payment per person by board}}{\$90.00 + \text{Grant per person under subsection (2)(d)}} \times \text{Grant per person under subsection (2)(d)}$$

(4) Where a dispute arises as to the method to be used in determining the grant per person by a board to an agency or organization under subsection (3) the matter shall be referred to the Minister whose decision is final.

7 (1) A board may be paid a grant equal to 90% of any contribution made for capital purposes by the board to any organization or agency under section 6(1)(d) which provides instruction for persons who are trainable mentally retarded or severely learning disabled but the sum paid to the board shall not exceed the lesser of:

(a) 90% of the support for which the project would be eligible if it was a project of the board under The School Buildings Regulations, and

(b) 90% of the actual cost of the project.

(2) A board may be paid a grant equal to the lesser of

(a) the support provided for a school division under the School Buildings Regulations, and

(b) the actual cost of the school building project

in respect of projects designed to allow the board to provide in its own classrooms instruction for pupils or special education extension students who have abnormal mentality or are otherwise handicapped to the extent that they cannot be educated in regular or opportunity classrooms.

8 (1) A grant may be paid to a board which uses the services of a person by direct employment, contract or payment of a fee for service to provide mobility training to blind pupils in its school where the person providing the training is approved by the Minister.

(2) The amount payable to a board in respect of a blind pupil under this section shall be the lesser of:

(a) the actual cost to the board of providing mobility training to the pupil, and

(b) the lesser of

(i) $12 per hour of training provided to the pupil plus the actual cost to the board of necessary travel and subsistence for the person providing the training under subsection (1), and

(ii) $500 per school year.

(3) Notwithstanding subsection (2), the amount payable in respect of any one pupil shall not exceed $3,000 for all school years.

9 (1) A grant may be paid to a school for handicapped children located outside the province of Alberta where it is approved for purposes of this section by the Deputy Minister.

(2) A grant paid under this section shall not exceed the tuition fee of the school in respect of children who would be pupils if they were enrolled in a school of a board.

PART VII

(Learning Disabilities Fund)

25 (1) Where two or more boards by a contractual agreement, approved by the Minister, jointly use the services of a person or persons approved by the Minister or his designate, whether by direct employment, by direct contract, or otherwise, for the purpose of diagnosing and assisting pupils with perceptual and learning disorders, there may be paid

(a) for the school year 1977/78, the lesser of

(i) the sum obtained by multiplying the number of pupils enrolled in Grades I to VI in the schools of the boards by $16.50,

(ii) the actual cost to the boards in respect of the services under this subsection,

(iii) the sum of $100,000, and

(b) for the school year 1978/79, the lesser of

(i) the sum obtained by multiplying the number of pupils enrolled in Grades I to VI in the schools of the boards by $17.80,

(ii) the actual cost to the boards in respect of the services under this subsection, and

(iii) the sum of $108,000.

(2) Where a board is not a board under subsection (1) and uses the services of a person or persons approved by the Minister or his designate, whether by direct employment, by contract or otherwise, for the purpose of diagnosing and assisting pupils with perceptual and learning disorders, there may be paid

(a) for the school year 1977/78, the lesser of

(i) the sum obtained by multiplying the number of pupils enrolled in Grades I to VI in the schools of the board by $16.50,

(ii) the actual cost to the board in respect of services under this subsection,

(iii) the sum of $100,000, and

(b) for the school year 1978/79, the lesser of

(i) the sum obtained by multiplying the number of pupils enrolled in Grades I to VI in the schools of the board by $17.80,

(ii) the actual costs to the board in respect of services under this subsection,

(iii) the sum of $108,000.

(3) In this Part "actual cost" may include such goods and services as are approved by the Minister or his designate.

(4) In this Part the cost of direct services provided by any department of the Government of Alberta shall be deemed to be

(a) actual costs of the board or boards in respect of services under this section, and

(b) a payment of a grant.

(5) Advances on grants under this section may be paid to a board from time to time up to a maximum of eighty percent of the sum determined by multiplying the number of pupils enrolled in Grades I to VI in the schools of the board by the applicable rate per pupil or such lesser amount as the Deputy Minister may determine.

(6) This Part does not apply to a board of a school area in which the Department of Education directly provides services for the purpose of diagnosing and assisting pupils with perceptual and learning disorders.

PART IX

(Early Childhood Service Program)

28 (1) In accordance with this section and section 29 there may be paid to an operator a grant for

- (a) the renovation of a building,
- (b) the purchase of furniture, and
- (c) the purchase of equipment

or any one or more of them, for the establishment of an early childhood service instructional area.

(2) In respect of those applications received by the Department after March 31, 1976 a grant under subsection (1) may be paid only for an instructional area to accommodate children under section 30(1) (a) and (b).

(3) A person may apply to the Minister for a grant under subsection (1) if

- (a) he is the owner of the building proposed to be renovated or if he is the holder of lease of a building, the unexpired term of which is at least three years,
- (b) he undertakes not to dispose of the building or terminate or otherwise dispose of the lease, as the case may be, for a period of at least three years, and
- (c) he sends to the School Buildings Board established under The School Buildings Act
  - (i) detailed plans and cost estimates of the proposed renovations, and
  - (ii) a detailed list and cost estimates of the furniture and equipment he proposes to purchase.

(4) Where the School Buildings Board is satisfied that

- (a) the conditions specified in subsection (3) (a) and (b) have been met, and
- (b) the plans and estimates sent pursuant to subsection (3)(c) are suitable.

the Board shall notify the Deputy Minister who may pay a grant being the lesser of

- (c) the estimated expenditures of the cost of renovations, furniture and equipment proposed under subsection (3), or
- (d) the sum obtained by multiplying by $35.00 the number of children

enrolled in the early childhood service program in an instructional area or $700, whichever is greater, or

(e) the sum of $1,400.

(5) An operator whose grant paid pursuant to subsection (4) or section 32(3) of Alberta Regulation 150/73 exceeds its actual expenditure for the financial year on renovations, furniture and equipment proposed under subsection (3) shall identify this difference as a liability of the capital and loan fund shown in the financial statement filed under Regulations Governing the Financial Reporting and Management of Early Childhood Services Operators.

(6) No operator shall be paid more than one grant with respect to an instructional area.

29 (1) Any grant made pursuant to section 28 is subject to the following conditions:

(a) that the operator will immediately notify the Deputy Minister in writing if he ceases to operate the early childhood service program in the instructional area;

(b) that the operator will continue to operate the early childhood service program in the instructional area in respect of which the grant was made for a period of at least three years from the date the School Buildings Board notifies the Deputy Minister that it is satisfied that the conditions have been met and the plans are suitable under section 28(4);

(c) that if the operator fails to continue to operate the early childhood service program in the instructional area in respect of which the grant was paid for at least three years in accordance with clause (b), the operator will repay all or part of the grant in accordance with subsection (2).

(2) Where an operator fails to operate an early childhood service program in the instructional area in respect of which the grant was paid for at least three years from the date of the grant, an inspector of the School Buildings Board shall determine in respect of the renovations, furniture and equipment in respect of which the grant was made

(a) the wear and tear,

(b) the period of time the renovations, furniture and equipment have been used as and for an instructional area,

(c) the value of the renovations, furniture and equipment to the operator,

and shall make a written report to

(i) the School Buildings Board, and

(ii) the operator,

specifying the portion of the grant and the manner in which the portion of the grant, in his opinion, should be repaid and, subject to subsection (3), the amount thereupon becomes due and payable as a debt to the Crown in Right of Alberta.

(3) Where an operator objects to anything in the report he shall within 21 days appeal to the Minister whose decision is final.

30 (1) Subject to sections 31 and 32 an operator may be paid, for each child enrolled in an early childhood service program of the operator, a grant in accordance with the following:

Category of Child	Rate Per Child
(a) Handicapped Children	
(i) mentally retarded child	$1,070
(ii) blind and visually impaired child	1,070
(iii) child with learning disabilities	1,070
(iv) physically handicapped child	1,180
(v) emotionally disturbed child	1,330
(vi) hearing handicapped child	1,330
(vii) severely handicapped child	1,330
(b) children residing in a disadvantaged area	700, and
(c) Other Children	525

(2) In addition to the sums specified in subsection (1)(a) there may be paid, for each handicapped child for whom special provision is made, the actual cost of providing a pre-admission assessment or the sum of $114, whichever is the lesser.

(3) The Minister or his designate may determine:

(a) whether a child comes under subsection (1)(a), and

(b) the subclause a child comes within.

31 (1) The Minister or his designate shall establish for each early childhood service program an index of not greater than one, based on the relationship between 400 hours and the number of hours of instruction for each child in the centre during the program period of the operator or the relationship between 18 in-home program visits and the average number of in-home visits per child enrolled in the in-home program during the program period of the operator or both.

Schedule B

1978 PAB CODING FOR SPECIAL EDUCATION.

Calgary Board of Education.

Note - Preface unique code with
school location code

5-1
Issued: January 1, 1978
Replaces: January 1, 1976

CALGARY BOARD OF EDUCATION

P.A.B.

STUDENT SERVICES PROGRAMS AND SUB-PROGRAMS

FUNCTION	PROGRAM	SUB-PROGRAM	UNIQUE CODE
Student Services	General Instruction	General	500
		Instr. Administration	501
	Educable Mentally Handicapped	E.M.H. Classes	511
	Gifted	General	514
	Hearing Impaired	Hearing Impaired Classes	521
	Hospital, Institutional & Homebound	General	560
		Alberta Children's Hospital	561
		Homebound Services	563
		Orthopedically Handicapped	565
		Woods, Detention & W. R. Hull	564
	Learning Disabled	Adaptation, Autistic & E.N.O.	571
	Trainable Mentally Handicapped	Retarded Children's Schools	541
	Visually Impaired	Visually Impaired Classes (low vision and blind)	531
Early Childhood Services	Early Childhood Services	Handicapped Classes	698
Operation and Maintenance	Care and Upkeep of Buildings	Custodial	911
		Repairs and Maintenance (use only object 911)	912
Pupil Personnel Services	Guidance and Counselling Services	General	710
		Counselling	711
		Group Guidance	712
	Social, Psychological and Supportive Services	General	720
		Attendance Services	723
		Consulting Psychiatrists	725
		Learning Assistance Centre	727
		Psychological Services	721
		Speech Pathologists	726
		Visiting Teachers	724
Transportation of Pupils	Bus Services	Non-Home School	977

Schedule C

CBE EXPENDITURES ON SPECIAL EDUCATION

EXPENDITURES IN GENERAL SERVICES BY THE CALGARY BOARD OF EDUCATION

	1976	1977	1978	
Special Educational Services				
General Instruction	$ 364,609	$ 395,000	$ 366,000	
Educable Mentally Handicapped	817,697	900,255	988,000	
Gifted Children	28,705	86,079	98,000	
Hearing and Visually Handicapped	348,463	412,385	478,000	
Hospital, Institution and Home-Bound	504,850	554,794	687,000	
Learning Disabled	357,608	395,152	468,000	
Social, Psychological and Supportive Services	2,115,409	2,359,196	2,563,000	
Trainable Mentally Handicapped	621,048	709,042	838,000	
TOTALS	$5,158,389	$5,811,903	$6,486,000	(budgeted)

Source: Calgary School District No. 19, Report and Financial Statements

Schedule D

CBE EXPENDITURES ON BASIC EDUCATION--DECADE TRENDS

DECADE TRENDS IN EXPENDITURES IN CALGARY PUBLIC SCHOOL DISTRICT NO. 19

COMPONENT		1970	1971	1972	1973	1974	1975	1976	1977^P	1978^P
Instructional Services	TOTAL	42,402,728	47,187,39	53,245,276	60,043,558	68,156,547	87,746,427	98,184,938	108,066,593	
	%	66.8	66.4	67.8	69.6	70.6	71.8	72.3	73.4	
Administration	TOTAL	1,973,134	2,321,375	[illegible],474,200	2,824,410	3,075,671	3,517,774	3,835,228	4,420,846	
	%	3.1	3.3	3.2	3.3	3.2	2.9	2.8	3.0	
Operation and Maintenance	TOTAL	7,957,136	9,331,454	10,099,097	10,636,111	12,197,094	15,311,198	18,707,557	21,245,512	
	%	12.5	13.1	12.8	12.3	12.6	12.5	13.8	14.4	
Transportation of Pupils	TOTAL	426,000	397,933	422,224	567,224	1,122,538	1,650,822	2,308,036	2,468,488	
	%	0.7	0.6	0.5	0.7	1.2	1.3	1.7	1.7	
Debt Services & Capital Fund	TOTAL	10,762,638	11,826,740	12,300,592	12,144,098	11,966,926	14,010,403	12,776,071	11,012,849	
	%	16.9	16.6	15.7	14.1	12.4	11.5	9.4	7.5	
Pupil Enrolment		76,630	79,096	80,366	80,833	81,297	81,441	82,780	82,310	
TOTALS		63,521,636	71,064,899	78,541,389	86,215,401	96,518,686	122,236,624	135,811,830	147,214,288	166.7 m
Percentage increase over Previous Year		11.86	11.88	10.52	9.77	11.95	26.65	11.10	8.40	13.2

Source: Financial and Statistical Report of Alberta School Boards, Alberta Education P = preliminary

Schedule E

ANALYSIS OF 1978 FINAL BUDGET.

Calgary Board of Education.

1978 Final Budget Analysis
Calgary Board of Education

Component	Proposed Expenditure	Percentage Of Total	Amount Per Pupil	Amount Per Classroom
Instructional Services*	$120,578,000	72.3%	$1,490	$36,683
Administration	6,556,000	3.9%	81	1,995
Operation & Maintenance	22,631,000	13.6%	280	6,885
Transportation	3,176,000	1.9%	39	966
Debt Services & Capital	13,760,000	8.3%	170	4,186
TOTAL	$166,701,000	100%	$2,060	$50,715

*Apart from special education ($4,246,000), early childhood services ($2,593,000), continuing education ($3,077,000) and contingency ($750,000), the budget provides $109,912,000 for 79,656 regular pupils at an average cost of $1,380.

Source: Calculated from 1978 Operating Budget of Calgary School District #19.

Schedule F

PROJECTION OF ENROLLMENT 1977-1984.

Calgary Board of Education.

CALGARY BOARD OF EDUCATION December, 1977

PROJECTION OF ENROLMENT 1977-1984

Based Upon
(a) Grade I enrolment (1977-1984) equals number of resident births, March to February, times survival ratio.
(b) Survival ratios from one grade to the next are calculated on the survival ratio for the preceding year.
(c) Admission age - six on or before February 28.
(d) This projection makes no allowance for Early Childhood Services Programs or Continuing Education.

Resident Births 6 Years Previous		Actual 4943	Actual 7190	Actual 7874	Actual 7806	Actual 8003	Actual 7568	Actual 7245	Actual 7100	Actual 7387	Est. 7950	Est. 8025	Est. 8400	Est. 8600
	Survival	1960	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Grade/Level	Ratio	Actual	Actual	Actual	Actual	Actual	Actual				Estimated			
I	0.893	4550	6489	7242	6800	7203	6758	6470	6340	6597	7099	7166	7501	7680
II	0.971	4500	6515	7111	6419	6432	6996	6562	6282	6156	6406	6893	6958	7283
III	0.971	3685	5498	6833	6728	6424	6247	6706	6372	6100	5977	6220	6693	6756
IV	0.999	3813	5662	6984	6238	6843	6420	6241	6699	6366	6094	5971	6214	6686
V	0.987	3583	5814	6890	6328	6177	6756	6337	6160	6612	6283	6015	5893	6133
VI	1.014	3415	5303	6705	7023	6391	6262	6851	6426	6246	6705	6371	6099	5976
Elementary		23546	35281	41765	39536	39470	39439	39167	38279	38077	38564	38635	39358	40514
VII	0.996	3483	5200	6600	7252	6920	6364	6237	6823	6400	6221	6678	6346	6075
VIII	1.042	3636	4921	6335	7073	7409	7212	6631	6499	7110	6669	6482	6958	6613
IX	0.986	3000	4733	6143	7162	7131	7306	7111	6538	6408	7010	6576	6391	6861
Junior High		10119	14854	19078	21487	21460	20882	19979	19860	19919	19901	19736	19695	19549
X	0.968	2175	3717	5915	7150	7001	6901	7072	6883	6329	6203	6787	6366	6186
XI	0.927	1842	3587	5351	6329	6579	6493	6397	6556	6381	5867	5750	6292	5901
XII	0.938	1838	3978	5680	5738	5980	6171	6090	6000	6150	5985	5503	5394	5902
Senior High		5855	11282	16946	19217	19560	19565	19559	19439	18860	18055	18040	18052	17989
Special Classes		229	577	1074	1145	1041	1040	1050	1050	1050	1100	1100	1100	1100
GRAND TOTALS		39749	61994	78863	81385	81531	80926	79735	78628	77906	77620	77511	78205	79152

779199/EDP337

Schedule G

GUIDELINES FOR THE PAYMENT OF SPECIAL EDUCATION TEACHING POSITION GRANTS, JUNE 1978.

Alberta Education.

GUIDELINES FOR THE PAYMENT OF
SPECIAL EDUCATION TEACHING POSITION GRANTS
under Section 5 of the
School Grants Regulations
Issued by the Special Educational Services Branch
Alberta Education
June 1978

These guidelines supersede all previous guidelines issued by the Department. Please destroy the statement issued in March 1977 entitled Guidelines for the Payment of Special Education Teaching Position Grants.

A. The Framework of Special Education

1. Alberta Education recognizes the fact that there are many possible arrangements for educating handicapped pupils. The most common of these arrangements are described below. Any individual pupil may remain in any one of the following settings for a few days or for his/her full educational career. The placement and the length of time in that placement will be determined by the specific educational needs of each individual pupil at each point in his educational career.

   (a) The handicapped pupil is accommodated in the regular classroom and provided individual assistance as required. This individual assistance may be in the form of a special, individualized program. Assistance in carrying out the program may be provided by the regular classroom teacher, a resource teacher, a teaching aide, or some other person. The pupil may be given special materials and equipment to assist in learning: for example, a blind pupil in a regular classroom may have a taperecorder, braille writer and, braille text and reference books.

(b) The handicapped pupil is accommodated in the regular classroom but, for special programs of instruction, may go to a resource room or education clinic. Thus, a pupil with a speech disorder might spend thirty minutes a day away from the regular classroom in therapy sessions with a speech therapist, but remain with his/her classmates for most of the school day. A pupil with a learning difficulty may attend a resource room or an educational clinic for specialized assistance but spend the majority of the school day in a regular classroom.

(c) The handicapped pupil, because of the nature of his/her disability, remains the responsibility of the segregated classroom teacher under special instruction, but may join the regular school program whenever this is feasible. This arrangement is called the co-operative classroom.

(d) The handicapped pupil remains full time in the special class. A pupil may require the specialized services and the protective; supportive environment provided for his/her specific needs by the segregated classroom setting.

(e) The handicapped pupil is homebound or hospitalized and the educational service must be brought to him/her on a more or less individual basis. This may be short-term as, for example, when a pupil is recovering from a severe sickness or injury, or it may be long-term when a pupil has a chronic illness or condition which prevents him/her from attending school.

(f) The handicapped pupil, because of non-educational reasons, requires a special setting in a home, hospital, or other institution which may offer active treatment, custodial services, or detention facilities. Educational services may be supplied to him/her in this setting.

B. Normalization

In the education of handicapped children today, the tendency is to keep them in close contact with unhandicapped children. We thus emphasize the ways in which the child is "normal" and de-emphasize the ways in which he/she is different. This is called "normalization" which is a good principle but which must be applied with a great deal of forethought and planning.

Criteria for integration must be carefully prepared and followed to ensure that both the handicapped pupil and the people with whom the handicapped pupil will associate meet the established criteria prior to integration. The amount of active and ongoing support necessary for an "integrated" handicapped pupil to function satisfactorily in a "normal" setting cannot be overestimated. The pupil, his/her family, his/her classmates, and the teachers with whom he/she is in contact must have sources of advice and assistance immediately at hand to overcome or forestall difficulties which will likely be encountered. Failure to appreciate this necessity for support is to risk frustration and failure. The absence of adequate support services may so disrupt the regular educational program and the operation of the school that the validity of integration under those circumstances is brought into serious question.

While integration or normalization is an objective of Special Education, it is not a panacea for the problems of all handicapped children.

C. The Resource Room

The resource room has become the most usual means of providing programs for pupils with milder forms of learning disability. While the resource room has become associated with the instruction of the learning disabled, it should also be considered as an appropriate setting for the treatment of some other kinds of handicap. In these guidelines, it will be noted that the means of providing special education is kept distinct and separate from the specific, identified handicap.

This should give school boards a great deal more flexibility in making suitable arrangements to provide appropriate programs.

The resource room teacher will spend a majority of his time working with pupils on their specific learning deficits. About ten percent of the resource room teacher's time should be spent in consultation with parents, regular class teachers of children being served in the resource room, school administrators, and assessment personnel. Another ten to fifteen percent of the resource room teacher's time could be spend assisting regular class teachers with assessments and programs for learning disabled pupils who will not need placement in the resource room.

D. Guidelines for Establishing Special Education Teaching Positions

Special Education Teaching Positions may be approved to serve handicapped children in regular classrooms, in resource rooms, in segregated classes, or in programs for the homebound or hospitalized. When a part-time position is established, the grant will be paid on a proportional basis, whether for an approved part-time position or for an approved class operating for only part of the school year. All Special Education Teaching Positions described in these Guidelines can be approved for elementary, junior high, and senior high school levels.

Resource Room

A Special Educational Teaching Position will normally be approved if the following conditions are met:

1. No fewer than three and no more than twelve pupils are under instruction at any one time.
2. The resource room provides programs for a maximum of twenty-five different pupils.
3. A minimum of ten percent of the resource teacher's time is devoted to consultation.

NOTE: The resource teacher may travel to different teaching locations.

Itinerant Service (Serving handicapped pupils in regular classrooms.)

For purposes of funding, the itinerant teacher will be classified in terms of the handicapped served (e.g., Deaf or Visually Impaired). A Special Education Teaching Position will normally be approved if the teaching position meets the following conditions:

1. For a full-time position, at least twenty hours per week is spent in contact with pupils.
2. The number of pupils served will vary according to the handicap, but in no case should the number of pupils exceed twenty-five, and twenty for the sensory handicapped.
3. Not more than one-quarter of the time is spent in travel.
4. Sufficient time is allowed for consultation with teachers and support staff and for other related professional duties.

Homebound and Hospitalized Service (Serving students who are either hospitalized or homebound)

A Special Education Teaching Position will normally be approved if the teaching positions meets the following conditions:

1. For a full-time position, a maximum of ten different pupils constitute a case load.
2. Not more than one-quarter of the time is spent in travel.
3. Sufficient time is allowed for consultation with teachers and support staff and for other related professional duties.

NOTE: Pupils on short term absence from school (less than three or four weeks) should receive assistance from their usual teachers. Pupils on long term absence (more than three or four weeks) are possible candidates for homebound service. Homebound service for trainable and dependent handicapped pupils is seldom a suitable substitute for a more continuous, socializing program.

Education Clinic

1. The teacher or clinician is employed full-time.
2. Intensive instruction is given usually on a one-to-one or one-to-two basis.
3. No teacher or clinician sees more than twenty pupils per week on an average.
4. A minimum of ten percent of the teacher's or clinician's time is devoted to consultation with teachers, other professional personnel, and parents.

Segregated Class

A segregated class is a group of pupils having a specific handicap who remain together for most of their school day for special instruction. The pupils in the special class need not be completely segregated but should join other pupils for certain subjects or activities, where this is possible (co-operative class.) On the other hand, not all pupils can or should be "integrated".

A Special Education Teaching Position will normally be approved if a segregated class meets the criteria set forth below.

NOTE: When the enrolment in a segregated class falls below three full-time equivalent pupils and remains below that level, the Special Education Teaching Position Grant may be reduced proportionately.

Enrolment Criteria for Special Education Teaching Positions

Type of Class	Upper Limit of Class Enrolment
Educable Mentally Handicapped	12
Learning Disabled	"
Language Deficit	"
Socially Maladjusted	10
Institutional	"
Hard-of-Hearing Junior and Senior High School	9
Deaf-Junior and Senior High School	"
Partially Sighted	"
Speech Disordered	"
Specified School	"
Trainable Mentally Handicapped	8
Hard-of-Hearing - Primary - Elementary	6
Deaf - Primary - Elementary	"
Severely Learning Disabled	"
Blind-Braille Using	"

NOTE: Because the dependent handicapped - considered to be in the trainable mentally handicapped category - are seldom taught as a classroom unit, the acceptable enrolment will be based on the Full Time Equivalent pupil count.

Criteria for Maintaining a Pupil in a Special Education Program

NOTE: A particular program may be carried out by an itinerant teacher or by a teacher in a resource room educational clinic, or segregated class.

A. General Criteria for Placement

1. Objective evidence through testing that the child is appropriately placed in a special program. This includes an individually administered intelligence test by a certified psychologist or other professional

person approved for General Diagnosis on the Learning Disabilities Registry of Alberta Education, and other tests assessing social and academic functioning level.

2. Screening for sensory impairment (vision and hearing).
3. Parental consent, preferably in writing.
4. Reports on achievement, behaviour, attitude, etc. from previous teachers.
5. Referral by a qualified educationist (e.g., classroom teacher, educational consultant, school counsellor, school administrator).

   NOTE: While a pupil in special circumstance may initially be placed in a special program on the recommendation of a qualified person in education, the pupil must not be maintained in a special program for more than six months without an adequate individual assessment and case conference concerning the exact nature and severity of his/her handicap. It is unlikely that grants will be approved where the pupil has not been adequately assessed.
6. Reassessment every two years, which may include intensive testing.

B. Specific Criteria for Placement

The specific criteria listed following indicate the particular eligibility requirements for each kind of handicap. The definitions and eligibility are further expanded for certain handicaps in the "Guidelines for the Establishment and Operation of Special Programs" issued by the Special Educational Services Branch. Where such "establishment and operational guidelines" exist, the relevant handicap is written in parenthesis and you are urged to check with that document.

Type of Program	Specific Criteria
Educable Mentally Handicapped (Educable Mentally Handicapped)	1. A complete individual assessment. 2. An intelligence quotient of between 50 and 75 (±5) as measured by an individual test. 3. The pupil who cannot function in a regular classroom.
Trainable Mentally Handicapped (Trainable Mentally Handicapped) (Dependent Handicapped)	1. A complete individual assessment. 2. An intelligence quotient of less than 50 (±5) as measured by an individual test. 3. The pupil who cannot function in a regular classroom or in a program for the educable mentally handicapped.
Hard-of-Hearing (Hearing Impaired)	1. A hearing loss as measured by an audiological examination. 2. The hearing impaired pupil whose development of speech and language, even if delayed, is following a normal pattern and who requires for education, special arrangements or facilities though not necessarily all the educational methods used for deaf children.
Deaf (Hearing Impaired)	1. A severe hearing loss as measured by an audiological examination. 2. The hearing impaired pupil whose sense of hearing is non-functional for ordinary purposes of life and who requires special education suitable for pupils with little or no naturally acquired speech or language.
Partially Sighted or Low Vision (Visually Impaired)	1. A vision loss as measured by an opthalmological examination. 2. The pupil, who after all possible visual correction, requires special materials and/or services but who learns primarily through visual media.

	3. The integrated braille-using blind pupil, usually with some form of itinerant service, is considered to be in the Low Vision category.
Blind/Braille Class (Visually Impaired)	1. A vision loss as measured by an opthalmological examination. 2. The pupil who requires special class instruction to develop braille and related skills and who must learn through auditory and tactile media.
Socially Maladjusted	1. The pupil who behaves in such a manner that he/she does not respond to the normal controls in a regular classroom.
Learning Disabled (Learning Disabled)	1. An intelligence quotient in the normal or above range as measured by an individually administered test. 2. Screening for sensory impairment (vision and hearing). 3. The pupil whose performance in reading, language, and/or mathematics is significantly below that expected on the basis of intelligence or learning potential. A significant discrepancy could range from six months in grade 1 to two years at grade 6.
Severely Learning Disabled (Severely Learning Disabled)	1. An intelligence quotient in the normal or above range as measured by an individually administered test. 2. Screening for sensory impairment (vision and hearing). 3. Complete medical examination with neurological and/or psychiatric assessment as need indicates. 4. Assessment to determine emotional or perceptual problems.

	5. The pupil whose performance in reading, language, and/or mathematics is grossly below that expected on the basis of intelligence or hearing potential. These academic difficulties will prohibit functioning in the regular classroom, learning disabilities resource room or segregated learning disabilities room. Placement must be in a class for severely learning disabled. An extreme discrepancy will range from: i) one or more years below at 1st and 2nd grade level; ii) two years or more at 3rd and 4th grade level; iii) three and one-half years or more at, or beyond, the 5th grade level.
Institutional	1. The pupil is confined to a hospital or other institution because of illness, accident, physical handicap, therapy, or for custody.
Language Deficit	1. The pupil is unable to profit from regular classroom instruction because he/she is unfamiliar with the language of instruction.
Specified School	1. The pupil attends L.Y. Cairns School.
Speech Disordered	1. An assessment by a speech therapist or speech pathologist. 2. The pupil has a disorder of voice, articulation, or rhythm and/or a developmental speech disorder.

Special Circumstances

1. In exceptional cases, school boards, with the permission of Alberta Education, may deviate from the guidelines. For example, where pupils have an additional complicating handicap or are multiply handicapped, the class size may have to be reduced below the limits set herein. Exceptional cases must be brought to the attention of Alberta Education by way of letter.

2. "Mixing" handicaps in a resource room or a special class should be done with great care and caution. Mixing is feasible only where a suitable program can be initiated and maintained for every pupil in the class. The teaching load must be such that each pupil receives sufficient attention to his/her special needs.

Administration

Applications for Special Educational Teaching Positions and Claims for Grants must be made on forms provided by Alberta Education. Application forms may be obtained from:

Supervisor of Special Education
Special Educational Services
Alberta Education
Devonian Building, West Tower
11160 Jasper Avenue
Edmonton, Alberta
T5K OL2

Claim forms may be obtained from:

Director
Finance, Statistics and Legislation
Alberta Education
Devonian Building, West Tower
11160 Jasper Avenue
Edmonton, Alberta
T5K OL2

School jurisdictions are encouraged to discuss their special education program with the Special Education Consultants prior to making application for a grant. The Consultants will be able to advise jurisdictions on the proper completion of the application form. In addition, assistance can be provided with program, curriculum, pupil placement, evaluation, etc., on an ongoing basis. Information is also available from:

Supervisor of Special Education
Special Educational Services
Alberta Education
Devonian Building, West Tower
11160 Jasper Avenue
Edmonton, Alberta
T5K OL2

Schedule H

GUIDELINES FOR THE ESTABLISHMENT AND OPERATION OF SPECIAL PROGRAMS FOR LEARNING DISABLED CHILDREN.

Alberta Education.

GUIDELINES FOR THE ESTABLISHMENT AND OPERATION OF SPECIAL PROGRAMS FOR LEARNING DISABLED CHILDREN

A. Definition: Learning Disabled Child

A learning disabled child is one who manifests an educationally significant discrepancy between his tested intellectual potential and actual level of performance. This discrepancy may be evidenced in the areas of understanding or using language, spoken or written, which in turn may manifest itself in imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. This discrepancy will not be caused by mental retardation, educational or cultural deprivation, severe emotional disturbance, or sensory loss.

B. Admission Procedures

1. Committee on Admission

An admissions committee shall be established in each school jurisdiction.

The committee shall consist of:

i) Superintendent of schools or designate;

ii) Certified psychologist or other professional person approved for General Diagnosis on the Department of Education Learning Disabilities Registry;

iii) Receiving teacher;

iv) Receiving principal.

Further membership could be selected from the following:

v) Referring teacher;

vi) Parent or guardian or designate where possible;

vii) Other pertinent community agencies as necessary.

This committee shall arrange for initial screening, conference the assembled history of each candidate, advise on special program placement, and present a preliminary program design.

2. Parental Approval

In no case may a pupil be assigned to a special program without the prior approval of the parents or guardians following a careful explanation of the nature of the special program. It is advisable to have this approval in writing.

3. Eligibility

3.1 Before any child is enrolled in a special program for learning disabled children:

a) he must have an intelligence quotient above the educable mentally handicapped level (75 ± 5) as measured on an individual intelligence test (WPPSI, WISC, WAIS, Stanford-Binet) administered by a professional person approved for General Diagnosis on the Department of Education Learning Disabilities Registry or other certified psychologist;

b) he must show evidence of marked academic difficulties in the regular classroom. A significant discrepancy could range from 6 months to 3 years depending upon the chronological age of the student: i.e., 6 months below grade level is significant for a child in Grade 1;

c) screening for sensory impairment (vision, hearing) shall be completed prior to special class placement;

d) the school must have written reports from teachers concerning behavior, attitude, and academic progress.

3.2 High risk children identified by Early Childhood Services or community health services shall be considered for placement in a program for the learning disabled when applicable.

3.3 A copy of the psychological reports, as well as other pertinent records, reports, and recommendations are to be kept on files accessible to authorized personnel. Individual pupil programs, program revisions, and progress reports are to be routinely recorded and kept on file.

C. Periodic Review of Placement

The initial placement shall be reviewed by the teacher and supervisor after an observation period. Placement shall be reviewed again at the end of every school year. Many children will spend less than a school year in special education remediation programs for the learning disabled. However, for long term students, it is essential to make the periodic review as requested and to complete a full reassessment at least once every two years.

D. Accommodation

All special classes for learning disabled children (segregated, cooperative, or resource room) shall be provided with facilities equivalent to those provided for other pupils within the system. These facilities are best located near children of similar chronological age groups. Education clinics or learning assistance centres may be located centrally to avoid inordinate amounts of time spent in travelling.

E. Materials and Equipment

Any special education program for the remediation of learning disabilities must be adequately supplied with suitable special textbooks, content materials, teaching devices, manipulative materials, and specialized equipment.

F. Program

The program offered to learning disabled children must be specifically designed to meet individual needs and provide for pupils progressing at varying rates. Goals and objectives based on individual assessment shall be established for each pupil placed in the program. The amount of time spent by the learning disabled child in the special program will depend on the degree of his disability and the intensity of his remedial program. The teacher shall have some time during the school week to confer with parents, other teachers, and support personnel. Special Education personnel with the Department of Education shall be contacted prior to the establishment of programs for the learning disabled.

G. Class Enrollment

i) Segregated class: upper limit 12
lower limit 3
ii) Resource room: upper limit 25 pupils per week

NOTE: i) Any deviation from the above shall be discussed first with Special Education personnel with the Department of Education.

ii) Jurisdictions offering a resource room program serving children with a variety of handicaps will find the number of learning disabled children who can be served decreased in direct proportion to the number of children with other handicaps. When a resource room serves two handicaps, the total number of learning disabled pupils enrolled should be decreased by 2 for each pupil with the second handicap:

i.e.	Resource Room	LD	Total	25
	Resource Room	1 EMH + 23 LD		24
	Resource Room	4 EMH + 17 LD		21

When a resource room serves 3 or more handicaps the total number of learning disabled pupils enrolled should be decreased by 3 for each one of the other two handicaps:

i.e.	Resource Room	LD	Total	25
	Resource Room	1 HH + 1 EMH	19 LD	21
	Resource Room	2 HH + 4 EMH	7 LD	13

However, when this is done, caution should be used to guard against overloading the teacher or diluting the service to the point where it becomes ineffective. Each handicapping condition demands a different type of program making it very difficult for the teacher to supply the individual attention required by the pupils.

H. Professional Personnel

While the selection of a teacher is the responsibility of the school board, it is expected that a special class teacher (learning disability) will have:

a) a valid Alberta Teaching Certificate;

b) successfully completed course work dealing with the education of the learning disabled child;

c) demonstrated competence in teaching children (preferably at the elementary school level);

d) a genuine interest in teaching learning disabled children;

e) the ability to accept children whose behavior may be deviant or sub-average, academically and socially.

Please contact the Department of Education, Special Educational Services Branch, for all necessary forms and information pertinent to the establishment and operation of special education classes.

Schedule I

Cascade Instructional Models

Resource Supports for Integrated Education

Cascade Levels	Instructional and/or Programming Authority	Resource Supports to Classroom
Regular Classroom, no handicapped students		1. In-service on diagnosis and assessment.
LEVEL I: Regular Class, no instructional assistance	Regular Teacher	
LEVEL II-A: Regular Class, with instructional assistance	Regular Teacher and Resource Teacher	2. In-service on instructional methods, classroom management and use of resource personnel.
LEVEL II-B: Regular Class with highly specialized instructional assistance	Regular Teacher and Learning Assistance Centre Staff	3. Instructional materials. 4. Reduced class size.
LEVEL II-C: Regular Class, with assistance for sensory impaired students	Regular Teacher and Itinerant Teacher	5. Teacher aide. 6. School tutor.
LEVEL III: Special Class, part-time	Special Education Teacher	
LEVEL IV: Special Class, full-time	Special Education Teacher	
Successive levels: home-confined, residential		

The following notes will assist in interpretation of the model:

1. The model is constructed to conform to the levels listed in the Calgary adaptation of the Cascade model. The Levels in the left-hand column indicate student instructional placement, with placement always to the highest possible level.

2. The model does not indicate the presence of certain categories of specialized resource personnel currently employed by the

Board, i.e. the Visiting Teacher, the School Psychologist, the Speech Pathologist, the Attendance Officer and the Guidance Counsellor. It is assumed that these individuals would continue to fill their usual functions in the demonstration schools.

3. All resources listed in the table should be considered to be potentially available for any integrated classroom. Principals should be assisted to prepare needs assessments of the students and teachers in their schools in order to guide central administration in the distribution of resources between schools. Need for resources related to determination of Cascade level (i.e. the Resource Teacher, Learning Assistance Centre, Itinerant Teacher or Special Education Teacher) should be assessed on the basis of instructional requirements of the handicapped student(s). Need for resource supports to the regular classroom (i.e. in-service, materials, reduced class size, Teacher Aide or School Tutor) should be assessed on the basis of both instructional requirements of the handicapped student(s) and the ability of the regular teacher to manage the teaching of the entire class. It is expected that teachers and principals will normally make use of the resources sequentially, in the downward direction. Resources which are higher on the list will be used to full benefit before moving to resources lower on the list. However, there may be exceptional cases in which the usual order of resource use is reversed. The classroom resources are shown on the model as extending down from Cascade Level I to Cascade Level III. Regular teachers which receive the part-time special class students (Level III) may require resource support similar to that provided to teachers at Level I and Level II of the model.

4. The top line of the model "Regular Classroom, no handicapped students" was inserted to indicate that it is advisable for all teachers in the Calgary system to receive some in-service instruction on diagnosis and assessment of handicapped students. Unless there are unusual circumstances which determine otherwise, all schools with integrated classrooms are expected to require the second level of in-service (on instructional methods, classroom management and use of resource personnel) and special instructional materials. In-service should generally be regarded as a prerequisite to the right to accept handicapped children into the classroom.

5. Definitions of roles and responsibilities between all personnel in the model must be discussed and outlined. The issue of authority over the educational programming of the student must be addressed. For example, it is assumed that the regular teacher would assume authority over the teacher aide. Appropriate sharing of responsibility between the regular teacher and the resource teacher may require discussion. It is expected that the Resource Teacher, the Itinerant Teacher and the Learning Assistance Centre staff will fill two functions: provision of actual instruction to the students; and provision of consultative advice to the teacher. (The latter function

of consultation would classify them as a Level I resource; this classification was omitted from the model in order to simplify the presentation.

6. Teacher Aides, School Tutors, Resource Teachers and Learning Assistance Centre personnel form a hierarchy of increasing experience and increasing specialized competence. The Teacher Aide does not need a degree, but the other four types of personnel are assumed to have at least one degree. School Tutors and Resource Teachers can be created through intensive in-service training of exceptionally good teachers. Learning Assistance Centre staff generally require advanced university instruction in special education. Itinerant Teachers have received specialized instruction in teaching of students with particular disabilities. Teacher Aides, Resource Teachers, Itinerant Teachers and Learning Assistance Centre staff are defined by job functions similar to those in existence in Calgary at present. School Tutors are expected to work with students on a one-to-one or group basis, under the direction of the regular classroom teacher.

7. School Tutors and Resource Teachers may work within a single school, or be shared between two or more small schools Learning Assistance Centre staff will draw pupils from several schools. Teacher Aides will normally be assigned on a shared basis to two or more classrooms. Itinerant Teachers will be assigned to specific pupils.

8. There will likely be some students with highly specialized needs who cannot be fitted into the Level I and/or Level II resource patterns shown in the model, e.g. physically handicapped students with a need for some form of specialized therapy. These students, when assisted by an appropriate resource, would be considered to be placed at an additional subcategory of Level II on the model.

9. Numbers and amounts of resource support required will vary with numbers of handicapped children in a class, and with the nature of the handicap. Precise specifications, based on empirical evidence, could not be obtained from the literature. A set of tentative numerical specifications has been developed for use in guiding the planning for the demonstration schools. These specifications are presented in the accompanying report on cost estimates. The experience accumulated by the demonstration schools over the next two years will assist in establishing the validity of the proposed specifications.

Schedule J

RECOMMENDATIONS

Recommendations: A Study of the Integration of Handicapped Students in the Regular Schools of the Calgary Board of Education

RECOMMENDATION 1: THAT THE BOARD DEVELOP AND ADOPT: (1) A COMPREHENSIVE STATEMENT OF POLICY; (2) A STATEMENT OF PHILOSOPHY, RATIONALE, GOALS AND OBJECTIVES; AND (3) A SET OF IMPLEMENTATION GUIDELINES FOR THE INTEGRATED EDUCATION OF HANDICAPPED STUDENTS AT ALL ACADEMIC LEVELS IN THE CALGARY SYSTEM.

RECOMMENDATION 2: THAT A DISSEMINATION PLAN BE DEVELOPED TO ENSURE THAT THE DOCUMENTATION SUGGESTED IN RECOMMENDATION #1 IS AVAILABLE TO ALL INTERESTED PERSONS, INCLUDING REPRESENTATIVES OF THE MAIN DECISION-MAKING GROUPS INVOLVED WITH INTEGRATION IN CALGARY SCHOOLS.

RECOMMENDATION 3: THAT ORIENTATION MEETINGS AND TRAINING SESSIONS BE CONDUCTED WITH RESOURCE STAFF, SCHOOL ADMINISTRATORS AND COMMUNITY REPRESENTATIVES WHO WILL BE RESPONSIBLE FOR ORIENTING OTHER PERSONS TO THE CONTENT OF THE DOCUMENTS SUGGESTED IN RECOMMENDATION #1.

RECOMMENDATION 4: THAT THE BOARD AUTHORIZE ACTIVITY TO DEVELOP AND APPROVE DEFINITIONS OF HANDICAPPED STUDENTS AND HANDICAPPING CONDITIONS THAT MODIFY THE CATEGORIES CURRENTLY USED TO IDENTIFY STUDENTS FOR GRANT PURPOSES.

RECOMMENDATION 5: THAT CAREFUL REVIEW AND VALIDATION BE MADE OF INSTRUMENTS SUCH AS THE STUDY'S SCREENING CHECKLIST OF STUDENT BEHAVIOURS THAT CAN BE USED BY TEACHERS AND OTHER KNOWLEDGEABLE STAFF TO IDENTIFY AND ASSESS STUDENTS WITH POSSIBLE HANDICAPPING CONDITIONS.

RECOMMENDATION 6: IF RECOMMENDATION #4 IS IMPLEMENTED, AND NEW DEFINITIONS ARE ESTABLISHED, THAT A SIMILAR REVIEW BE MADE OF ASSESSMENT PROCEDURES AND INSTRUMENTS CURRENTLY USED IN CENTRALIZED STUDENT ASSESSMENTS. THIS REVIEW SHOULD ENSURE THAT: (1) THOSE ASSESSMENT STRATEGIES ARE COMPATIBLE WITH THE REVISED DEFINITIONS, AND (2) THEY ARE AS EFFICIENT AS POSSIBLE IN ORDER TO EXPEDITE THE ENTIRE DIAGNOSIS/PLACEMENT/PROGRAMMING PROCESS.

RECOMMENDATION 7: IF THE DEFINITIONS OF HANDICAPPED STUDENTS AND HANDICAPPING CONDITIONS ARE MODIFIED AND IMPROVEMENTS ARE MADE IN THE STUDENT IDENTIFICATION AND DIAGNOSTIC PROCESS, THAT THE BOARD APPROVE THE SPECIFICATION OF: (1) EDUCATIONAL METHODS AND RESOURCES (E.G., EQUIPMENT, MATERIALS) APPROPRIATE TO THE MAIN EDUCATIONAL NEEDS OF HANDICAPPED STUDENTS; (2) PROCEDURES BY WHICH PARENTS AND THEIR HANDICAPPED STUDENTS CAN PARTICIPATE WITH SCHOOL STAFF IN PLANNING PERSONALIZED EDUCATIONAL PROGRAMS; AND (3) PROCEDURES BY WHICH THEY CAN MONITOR THE EDUCATIONAL PROGRESS OF THOSE STUDENTS.

RECOMMENDATION 8: THAT A SYSTEMATIC STUDY BE DESIGNED TO ASSESS STUDENT AND FAMILY OUTCOMES EXPERIENCED BY A REPRESENTATIVE SAMPLE OF MODERATELY AND SEVERELY HANDICAPPED INDIVIDUALS WHO HAVE BEEN PLACED IN INTEGRATED SETTINGS. COMPARISONS SHOULD BE MADE TO A SIMILAR GROUP WHICH HAVE NOT BEEN PLACED IN INTEGRATED SETTINGS, PROVIDED THAT SUFFICIENT COMPARABLE INDIVIDUALS CAN BE FOUND. SUCH A STUDY SHOULD BE VIEWED AS THE PRELIMINARY STAGE FOR A LONGITUDINAL INVESTIGATION OF INTEGRATION EFFECTS.

RECOMMENDATION 9: THAT THE IMPLEMENTATION OF IMPROVED RESOURCE SUPPORT FOR THE INTEGRATED EDUCATION OF HANDICAPPED CHILDREN PROCEED ON A WELL-PHASED, SCHOOL-BY-SCHOOL BASIS. THE BOARD SHOULD ALLOCATE FUNDS TO A FEW SELECTED SCHOOLS (PERHAPS IN ONE AREA). SCHOOLS SHOULD BE SELECTED ON THE BASIS OF RELATIVELY LARGE NUMBERS OF HANDICAPPED CURRENTLY IN PLACE, OR OF WILLINGNESS TO ACCEPT ADDITIONAL HANDICAPPED STUDENTS. FEEDER SYSTEMS TO SECONDARY SCHOOLS SHOULD BE CONSIDERED IN ELEMENTARY SCHOOL SELECTION. THESE SCHOOLS WOULD LATER SERVE AS MODELS OF SUCCESSFUL APPROACHES SO THAT OTHER CALGARY SCHOOLS COULD BUILD ON THEIR ATTEMPTS. A TOTAL SYSTEM APPROACH TO INTEGRATION IS NOT RECOMMENDED UNTIL SUCH MODELS HAVE BEEN IMPLEMENTED AND EVALUATED AND ARE AVAILABLE TO SERVE AS DEMONSTRATION SITES.

RECOMMENDATION 10: THAT THE BOARD DESIGN IMPROVED RESOURCE SUPPORT FOR THE INTEGRATED EDUCATION OF HANDICAPPED CHILDREN WITH REFERENCE TO THE FOLLOWING MODEL (SEE PAGE 64 SCHEDULE I).

RECOMMENDATION 11: THAT PROVISION FOR ADEQUATE EVALUATION PROCEDURES BE INCLUDED IN THE DESIGN FOR THE DEMONSTRATION INTEGRATED SCHOOLS.

RECOMMENDATION 12: THAT SCHOOLS WHICH HAVE INTEGRATED HANDICAPPED STUDENTS BE ASSISTED TO DEVELOP INDIVIDUALIZED EDUCATIONAL PLANNING APPROACHES FOR THOSE STUDENTS, AND THAT INTERNAL MONITORING PROCESSES BE DEVELOPED TO ENSURE THAT: (1) THE HANDICAPPED STUDENTS ARE PROGRESSING SATISFACTORILY; (2) THEIR NON-HANDICAPPED PEERS ARE ALSO PROGRESSING SATISFACTORILY; AND (3) THE NON-HANDICAPPED PEERS ARE NOT EXPERIENCING UNDESIRABLE SIDE EFFECTS.

RECOMMENDATION 13: THAT SCHOOLS INVOLVED IN INTEGRATION ACTIVITY CONSIDER IMPLEMENTING ORIENTATION AND READINESS PROGRAMS FOR STUDENTS SO THAT STUDENTS WILL BE BETTER ABLE TO INTERACT CONSTRUCTIVELY IN INTEGRATED INSTRUCTIONAL AND NON-INSTRUCTIONAL ACTIVITIES.

RECOMMENDATION 14: THAT SCHOOLS INCREASING EXTENT OF INTEGRATION BEYOND PRESENT LEVELS CONSIDER PRESENTING COMMUNITY ORIENTATION PROGRAMS AIMED AT PREVENTING NEGATIVE REACTIONS.

RECOMMENDATION 15: THAT SCHOOLS WHICH HAVE INTEGRATED HANDICAPPED STUDENTS BUT ARE NOT INCLUDED AMONG THE DEMONSTRATION MODEL SCHOOLS BE DIRECTED TO REQUEST IN-SERVICE TRAINING FOR THE PRINCIPAL AND THE TEACHERS OF THE INTEGRATED CLASSROOMS. THE IN-SERVICE SHOULD INCLUDE MATERIAL ON DIAGNOSIS, INSTRUCTIONAL PROCEDURES AND CLASSROOM MANAGEMENT. IN-SERVICE SHOULD BE DESIGNED TO MAKE MAXIMUM USE OF THE KNOWLEDGE ALREADY ACCUMULATED BY CALGARY TEACHERS AND PRINCIPALS IN THE AREA OF EDUCATION OF THE HANDICAPPED.

RECOMMENDATION 16: THAT THE BOARD CONTINUE TO SUPPORT INTEGRATION OF HANDICAPPED STUDENTS TO THE MAXIMUM EXTENT POSSIBLE WHEN SUCH INTEGRATION ACTIVITIES ARE APPROPRIATE TO THE INDIVIDUAL EDUCATIONAL NEEDS OF EACH STUDENT.

RECOMMENDATION 17: THAT THE BOARD MAINTAIN EDUCATIONAL OPPORTUNITIES FOR STUDENTS AT ALL LEVELS OF THE CURRENT CASCADE MODEL. SPECIFICALLY, THERE SHOULD BE NO ATTEMPT, NOW OR IN THE LONG-RANGE, TO CLOSE DOWN THE SPECIAL CLASSES OR THE SEGREGATED INSTITUTIONS.

RECOMMENDATION 18: THAT THE BOARD CONTINUE TO PROVIDE ITS PRESENT COMPLEMENT OF SPECIALIZED RESOURCE PERSONNEL. SPECIFICALLY, THE CATEGORIES OF VISITING TEACHERS, PSYCHOLOGISTS, SPEECH PATHOLOGISTS, CLINICIANS AND TUTORS IN LEARNING ASSISTANCE CENTRES, GUIDANCE COUNSELLORS, ATTENDANCE OFFICERS, AND SPECIAL EDUCATION TEACHERS, SHOULD BE MAINTAINED. SERVICES SPECIFICALLY DESIGNED FOR INTEGRATED CLASSROOMS SHOULD BE CONSIDERED AS ADDITIONAL TO THE ABOVE SERVICES.

RECOMMENDATION 19: THAT THE BOARD UNDERTAKE AN INTERNAL REVIEW OF THE FUNCTIONS, REQUIRED COMPETENCIES, AND ACTIVITIES OF ITS SPECIALIZED RESOURCE PERSONNEL. SPECIFICALLY, THE CATEGORIES OF VISITING TEACHER, SCHOOL PSYCHOLOGIST, SPEECH PATHOLOGIST, LEARNING ASSISTANCE CENTRE STAFF (CLINICIANS AND TUTORS), GUIDANCE COUNSELLORS, ATTENDANCE OFFICERS, AND SPECIAL EDUCATION TEACHERS SHOULD BE EXAMINED FOR THEIR PRESENT AND PROJECTED RELATION TO INTEGRATED EDUCATION.

RECOMMENDATION 20: THAT THE BOARD CONSIDER HIRING ADDITIONAL NUMBERS OF SPECIALIZED PERSONNEL AS AN INTERIM MEASURE FOR THE NEXT TWO YEARS. SPECIFICALLY, NUMBERS OF SPECIAL EDUCATION TEACHERS, VISITING TEACHERS, SCHOOL PSYCHOLOGISTS, SPEECH PATHOLOGISTS AND LEARNING ASSISTANCE CENTRE STAFF SHOULD BE INCREASED.

SUPPORTING REPORTS
BY DATA SOURCE

APPENDIX B: A STUDY OF THE INTEGRATION OF HANDICAPPED STUDENTS IN THE REGULAR SCHOOLS OF THE CALGARY BOARD OF EDUCATION

Commissioned by:
Calgary Board of Education
Education Centre Building
515 Macleod Trail S.E.
Calgary, Alberta
T2G 2L9

Produced by:
Canadian Institute for Research
109 Brentwood Professional Building
3501 Charleswood Drive N.W.
Calgary, Alberta
T2L 2C2

May 30, 1978

Partially Funded by the Planning and
Research Branch of Alberta Education

Abstract

The Canadian Institute for Research was commissioned in June, 1977 by the Calgary Board of Education to study the extent and the effects of integration of handicapped children into the regular schools of the Calgary Public School System. Recommendations were requested concerning optimal levels of integration, and concerning costs of achieving those optimal levels.

A multiple-source design was proposed and implemented for the study. Background information was obtained through literature review and through preliminary exploratory interviews with various knowledgeable persons in the Calgary community. Extent of integration was assessed through analysis of statistical records from central administrative offices, and through direct questioning of principals. Opinions concerning effects of and desired levels of integration were sought through interviews with principals, regular teachers, special education teachers and parents of handicapped children. Contact was established with five other Canadian school systems of comparable size to the Calgary public system. The non-Calgary systems were questioned for information on extent of integration within their schools, and for report of operational problems of success which could be relevant to Calgary.

Research methods and findings from all data-collection procedures are described fully in the reports in this appendix. The reports are organized by data source. Each separate report contains a summary section of findings from that source. Summary statements of findings, together with discussion of conclusions and recommendations, are presented in the Final Report, bound under separate cover.

Members of the Study Steering Committee

Mr. G.L. Fowler, Chairman
Superintendent of Instructional Services
Calgary Board of Education
Education Centre Building, 515 Macleod Trail SE
Calgary, Alberta T2G 2L9

Mrs. I.C. Martini, Trustee
Calgary Board of Education
Education Centre Building, 515 Macleod Trail SE
Calgary, Alberta T2G 2L9

Mrs. D.B. Corbett, Principal
Albert Park Elementary School
1317 - 27 Street SE
Calgary, Alberta T2A 0Y2

Dr. C. Rhodes, Education Consultant
Planning and Research Branch
Alberta Education
Devonian Building, 11160 Jasper Avenue
Edmonton, Alberta T5K 0L2

Mrs. M. Richardson, Chairman
Society for the Hearing Impaired
4235 - 53 Street NW
Calgary, Alberta

Dr. C.H. Sangster
Associate Superintendent of Student Services
Calgary Board of Education
Education Centre Building, 515 Macleod Trail SE
Calgary, Alberta T2G 2L9

Members of the Research Staff

Principal Investigator

Dr. G.B. Jones, Vice-President
Canadian Institute for Research

Project Management

Dr. W.R. Unruh, President
Canadian Institute for Research

Dr. M.H. Nygaard, Vice-President and General Manager
Canadian Institute for Research

Ms. J.E. O'Connell, Senior Research Associate
Canadian Institute for Research

Ms. R.H. Driscoll, Senior Research Associate
Canadian Institute for Research

Special Project Consultants

Dr. P. Dahl, Associate Research Scientist
American Institute for Research
Palo Alto, California

Dr. G. Loken, Associate Professor
Department of Educational Administration
University of Calgary

Members of the Special Education Advisory Panel

Dr. G. Kysela, Associate Professor
Department of Education Psychology
University of Alberta

Dr. J. McLeod, Director
Institute of Child Guidance and Development
Department of Special Education
University of Saskatchewan

Dr. J.V. Van Tighem, Chief Superintendent (retired)
Catholic School Centre
Calgary, Alberta

Contents of Appendix B

Page

Abstract i
Members of the Study Steering Committee ii
Members of the Research Staff iii
Other Reports iv

Report #1 : Literature Review

Calgary Populations

Report #2 : Statistical Data; Extent
Report #3 : Knowledgeable Residents; Definitions; Extent, Impact, Resources
Report #4 : Regular Schools; Extent, Resources
Report #5 : Principals; Extent, Impact, Resources
Report #6 : Regular Teachers; Extent, Impact, Resources
Report #7 : Special Education Teachers; Extent, Impact, Resources
Report #8 : Students, General Population; Special Learning Needs
Report #9 : Handicapped Students and Their Parents; Impact

Non-Calgary Populations

Report #10 : School Systems; Definitions, Extent, Impact, Resources

Report #1: LITERATURE REVIEW

A Report of Survey of Canadian and American
Sources of Literature on the Topic
of Integration

Concerning: Definition of Integration
Impact of Integration
Extent of Integration in Non-Calgary Settings
Resources Required to Support Integration
Measurement of Integration

What does a fairly comprehensive review of the literature with respect to integration indicate?

TABLE OF CONTENTS

Page

Introduction 1-3
  Objectives of the Literature Review 1-3

Methods 1-4
  Sources for the Selection of Documents 1-4
  Criteria for the Selection of Documents 1-4
  Delimitations of Selection of Information from the Documents 1-4
  Limitations of the Review 1-5

Presentation of the Findings 1-5
  Question #1 - What is the Impact of Integrating Handicapped Children into the Regular Classroom? 1-5
    Advantages of Integration and Evidence of Impact . . . 1-6
    Disadvantages of Integration and Evidence of Impact 1-12
  Question #2 - How is Integration Defined? 1-14
  Question #3 - What is the Desired Level of Integration? 1-16
    System Level 1-16
    School Level 1-18
    Classroom Level 1-19
    Child Level 1-22
  Question #4 - What are the Current Levels of Integration in Other School Systems? 1-23
  Question #5 - What are the Commonly Used Objective Indicators and Measures of the Extent of Integration?. . 1-25
  Question #6 - What are the Alternate Methods of Defining Handicap and What are the Advantages and Disadvantages of Each? 1-26
  Question #7 - What are the Kinds of Support Facilities and Services Required by Teachers in Regular Classrooms? 1-30

Page

Pre-Service and In-Service Training 1-31
Support Personnel 1-32
Adjustment of Teaching Loads 1-33
Additional Materials and Equipment 1-34

Question #8 - What are the Structural/Architectural/ Equipment Requirements for Programs of Integration? . . . 1-35

Question #9 - What is the Nature of Evaluation Instruments Used to Assess Integration Programs? 1-37

Summary of the Findings 1-38

Research Techniques and Variables 1-38
Probable Effects of Integration 1-39
Integration in Other School Systems 1-40
Resource Support 1-41

Bibliography 1-42

Report #1: Literature Review

What does a fairly comprehensive review of the literature with respect to integration indicate?

INTRODUCTION

The integration of handicapped children into the regular classroom is a much debated issue. In Canada the controversy appears to stem from the desire of professional educators and interested parents to bring the education of handicapped children as close as possible to the regular program provided to non-handicapped children by each school system. This intent is reflected in a statement of the Calgary Board of Education (1976) which proposes to "...provide for a continued expansion of integration for handicapped children within the limits of budgetary concerns" (p.38). Consistent with this intent, the Board needs to know the current and desired levels of integration, and the impact that the implementation of these desired levels could have on school personnel, handicapped and non-handicapped children, facilities, materials, and financial resources of the Board. It is to these issues that the following review of literature is addressed.

Objectives of the Literature Review. Four major objectives were formulated to clarify the place of the literature review within the larger study, namely:

1. To identify research techniques and variables of interest for the design of the study.

2. To contribute to knowledge of the probable effects of integration.

3. To contribute to knowledge of actual implementation activity, and results of such activity, in other school systems.

4. To identify the types of resource support which are thought to be necessary for integration.

METHODS

Sources for the Selection of Documents. The following sources provided the references for the bibliographic documents studied for the literature review.

1. Literature review of the Alberta Special Education Study Report.

2. Local briefs presented to the Calgary Board of Education.

3. An abstract bibliography of *Research in Education* documents 1970 - 1974 and *Current Index to Journals in Education*, 1970 - 1974.

4. Two bibliographies of ERIC documents on Regular Class Placement and Resource Rooms, 1972 - 1976.

5. *Bibliography of Secondary Materials for Teaching Handicapped Students.*

6. The *Pro File Index* of Canadian Provincial and Municipal Government Studies, 1971 - 1977.

7. *Dissertation Abstracts International*, 1974 - 1976.

8. *Canadian Theses*, 1971.

9. *Master's Abstracts*.

Criteria for the Selection of Documents. Over 400 abstracts from the sources shown were reviewed to select documents according to the criteria listed below. 96 documents were selected for inclusion in the review, and these are listed in the bibliography at the end of this report.

1. Documents specifically related to the objectives of the literature review.

2. Documents that reported Canadian studies, opinions, experimental programs or evaluations.

3. Research studies dated 1974 - 1977.

4. Literature Reviews related to the integration issue reported by other researchers.

5. Availability of the documents.

Delimitations of Selection of Information From the Documents. The review of the documents was delimited to a list of specific questions approved by the study's Steering Committee. In the opinion of the Committee members, answers to these questions would provide the information pertinent to the critical decision needs of the Calgary Board of Education. The questions addressed were as follows:

1. **What is the impact of integrating handicapped children into the regular classroom?**
2. **How is integration defined?**
3. **What is the desired level of integration?**
4. **What are the current levels of integration in other school systems?**
5. **What are the commonly used objective indicators and measures of the extent of integration?**
6. **What are the alternate methods of defining handicap and what are the advantages and/or disadvantages of each?**
7. **What are the kinds of support facilities and services required by teachers in regular classrooms?**
8. **What are the structural/architectural/equipment requirements for programs of integration?**
9. **What is the nature of evaluation instruments used to assess integration programs?**

Limitations of the Review. Several factors limited the completeness of the review. While every attempt was made to be as comprehensive as possible, limitations of time and financial resources necessarily restricted its scope. It should also be noted that most of the reported studies reflect conditions, practices and procedures in the United States. Any studies that did report Canadian data were included. However, legislation in the United States has encouraged more extensive research than has been reported in Canadian sources. The reader is cautioned that direct comparisons with the Calgary system must be evaluated with regard to differences which may exist between Canadian and American systems.

PRESENTATION OF THE FINDINGS

The findings of the review are presented in question-by-question format, according to the nine questions which delimited the content of the review.

Question #1 - What is the Impact of Integrating Handicapped Children into the Regular Classroom?

The material on impact of integration is organized under discussion of postulated Advantages and Disadvantages of integration. The advantages and disadvantages identified in the literature are listed, with each statement of advantage or disadvantage followed by a presentation of relevant research results. Statements of advantage or disadvantage are shown in italics form, followed by a paragraph of elaboration of the statement derived from supportive subjective reports. This paragraph is then followed by the discussion of research results. Advantages are shown first, followed by a listing of disadvantages.

The results specify the impact of the statement on handicapped children, on non-handicapped children and on teachers where applicable. There were no studies that addressed the impact of integration on the handicapped child's parents.

Advantages of Integration and Evidence of Impact

Advantage 1: The handicapped child in the regular classroom achieves more both academically and socially, than when segregated from regular classes.

Special features of the regular classroom are believed to be more conducive to academic and social achievement than are some provided in a segregated class. Interaction between the handicapped and non-handicapped child generates more cognitive stimulation for the handicapped child (Kaufman, Gottlieb, Agard and Kukic, 1975). The handicapped child has an opportunity to realistically assess his achievement potential and to model appropriate behaviors exhibited by non-handicapped peers (Weininger, 1973). Further, the problems associated with the assessment and placement of borderline children with mild learning problems or those misclassified as educable mentally retarded are less evident if the child remains in the regular classroom (Dunn, 1969; Mortimer and Hammill, 1971; Gottlieb and Budoff, 1972).

Related Research. A comprehensive review of research concerning the relative efficacy of resource rooms, segregated special classes and regular classes was reported in the Alberta Special Education Study Report (1977).

The researchers established three criteria for the selection of studies to be reviewed:

1. Empirically based: articles based on opinion and speculation were excluded; the results of pupil outcomes had to be expressed quantitatively.

2. Internal validity: only those studies which employed a comparison group were included. Reports of studies which used a pretest - post test single-group design or compared the results against a standardized test norm were excluded.

3. Comparative data: the studies were to provide comparisons between different degrees of segregation (p. 10).

The conclusions derived from the selected studies related to cognitive domain objectives are paraphrased as follows:

1. The research to date has not definitely established the best placement for moderately handicapped EMH children with respect

to cognitive development and academic achievement.

2. There is virtually no evidence to support segregation as a method for improving cognitive achievement in EMH children.

3. The weight of the findings suggests that either integration in regular classes is advisable for EMH children or that the locus of instruction does not matter.

4. Some form of segregation is favoured for learning disabled children.

5. No differences are noted in the reading and spelling achievement of children with handicaps other than EMH or LD.

6. The regular class may provide equal benefit although it is not superior to the resource room, if the regular teacher is provided with necessary professional support (pp. 13, 16, 18).

The conclusion derived from the studies related to affective domain objectives included:

1. For self-concept development of EMH children the results are mixed, with those that show a difference favoring some form of integration.

2. For motivation and personal adjustment of EMH children no differences can be attributed to either segregated or regular class arrangements.

3. Support for segregated special classes for the EMH child relative to social development was reported in the literature. While none of the researchers found regular classes superior to to segregated classes, five demonstrated segregation as superior. In nine other studies no significant differences were found. Two studies comparing resource and regular settings found no difference in measures of social development.

4. Support for total segregation of EMH children is not found in the studies which assessed behavior.

5. Comparisons of resource rooms and regular class settings, and regular class and segregated settings for LD children indicated mixed results.

6. For LD children there was no instance which showed the regular class to be superior to some degree of segregation when affective outcomes were considered.

7. The question of the most appropriate placement for LD children has not been definitely answered. The limited evidence available suggests that placements per se may not be the crucial variable (p. 15, 18).

The researchers thus conclude that the results of comparative studies for a variety of teaching and learning situations are variable, with one exception.

> "The children generally benefit more academically from placement in regular classes than in segregated classes. The variable results with respect to type of disability and degree of integration in the other comparisons, suggest that decisions about grouping procedures may not be the crucial ones. Decisions concerning the support of teachers and their handicapped pupils, regardless of instructional setting, may be the really important ones."
> (Alberta Special Education Study Draft, 1977, p.19)

Evidence supporting this position is provided by an Alberta study that held constant the consultative support to teachers, and the service to pupils across regular classroom settings and resource rooms (Rhodes, 1976). The results indicated no difference in the cognitive achievement of children in the two settings. However, the author concluded that improvement could be directly attributed to teacher commitment, the application of local resources, and the professional assistance provided.

Advantage 2: The handicapped child is not labelled as readily by teachers or peers, when integrated into the regular classroom.

The segregation of categorically labelled children into special classes is believed to effect a "self-fulfilling prophecy" in the labelled child. Deprived of normal functions by birth, the child is further deprived by society when he is labelled and segregated from his peers (Association for Integration of Handicapped Children, 1976). He modifies his behavior to conform to the ascribed status (Gottlieb and Budoff, 1972); his learning experiences are guided by a "self-centred", "problem-centred" and "weakness-oriented" approach (Weininger, 1972); and his achievements are regarded by teachers to be "As good as can be expected considering..." (Weininger, 1973). "However, when assigned to the regular class the label becomes irrelevant, as individual differences are viewed not as deviations but as the basis upon which the content and methods of education can be based"(Dirr, 1974).

Related Research. Research studies indicate that the self-concept of educable mentally retarded children is affected by their knowledge of a low intelligence rating and their socio-economic conditions. The physical setting, whether integrated or segregated, does not affect the development of self-concept (Carvajal, 1972).

The contention of Kirk (1964), that children who have been identified and placed in special classes differ from children who have never been identified, was substantiated by Budoff and Gottlieb (1974) in a study of special class children returned to the regular classrooms with resource room support. These were compared to special class children who remained in special classes. They found that after two months the

> "...mere placement of students in a mainstream program and removal of the manifest evidence of the formal designation 'mentally retarded'... did not substantially alter the responses or behavior of the integrated students. They tended to withdraw or isolate themselves or to act in unusual ways towards their classmates"(p.20).

In this study the children's disability category and previous placement were kept from the teachers in the new school where they were enrolled. The researchers felt that if the special class was simply disbanded and the children disbursed to several classes within the same school, then the child's previous placement would be known to the other children and the school staff. Simply dislabelling was not likely to effect substantive changes in the child, or the attitudes of others towards him.

> "However, after one school year the integrated students felt more positive about their prospects in school, expressed an increased sense of control vis-a-vis their environment, and tended to view their own capability as students more positively than when they were in a special class"(p.21).

In an earlier study, Gottlieb and Budoff (1972) found that integrated childrens' positive school-related attitudes reflected their perceptions of other childrens' views towards them. These views were not shared by the segregated pupils who continued to feel that others viewed them as deviants.

The impact of labelling on the practices of teachers has also been reported. Flynn and Flynn (1970) found that regular teachers did not differentiate among social, personal, or intellectual areas of achievement when promoting children to a higher grade, but tended to promote on the knowledge of the retarded diagnosis and the absence from the class of children being given special tutoring.

The attitudes of regular class teachers who volunteered to accept educable mentally retarded and emotionally disturbed children into their classrooms if they received resource room assistance was reported by Shotel, Iano and McGettigan (1972). The educable mentally retarded children were more optimistically regarded by the teachers at the beginning than at the end of the school year. They found that these children did not integrate well academically or socially into their classrooms, they were amongst the lowest achievers, they did not participate in general class activities, and were frequently teased by other children. The teachers were more favorably disposed towards emotionally disturbed children in their classrooms, although their attitude towards the child's potential for academic and social growth did not change.

Advantage 3: Integration in the regular classroom helps the handicapped child adjust to and cope with the real world.

"Regular class placement provides an opportunity for the handicapped child to become familiar with his non-handicapped peers and to acquire behaviour patterns that are more socially acceptable" (Christopolos and Renz, 1969). "It prevents the handicapped child from developing an overdependence upon a small group structure and helps to develop the adaptability necessary to more readily facilitate his contact with society as a whole." (Gjessing, 1972).

Related Research. Two studies probed the effect of integrated experiences on the post-graduation experiences of handicapped children. One study of graduates from a vocational training institute who had hearing, sight, speech and physical impairments, indicated that they experienced significantly greater dissatisfaction and uncertainty with their co-workers than did the non-handicapped (Murphy, 1976).

Another study compared mildly and moderately mentally handicapped children who could have been placed in either an integrated or segregated setting, one and two years after their graduation from a regular school and a special school. An interview schedule designed to measure differences in employment skill levels, unemployment rates, job satisfaction, arrests and convictions, welfare assistance, financial independence and income level, indicated that there was little difference in long-range characteristics for either group (Collister, 1975).

Advantage 4: The non-handicapped child improves his ability to understand and accept the individual differences of handicapped children.

"Unless the non-handicapped child is exposed to handicapped children he perpetuates the stereotyped image of handicapped categories" (Brenton, 1974). "The normal child cannot learn to understand the problems of the handicapped nor appreciate them as individuals in segregated settings" (Association for Integration of Handicapped Children, 1976).

Related Research. Rapier, Adelson, Carey and Croke (1972) found that as the result of an integrated experience, non-handicapped children developed a more positive perception of orthopaedically handicapped children. Thus the handicapped child was gradually seen as less weak or in need of help and attention. Additionally, younger children were more extreme in their assessment of the handicapped child than were sixth grade children. Although maturation may have contributed to this difference, the researchers contend that the integration experience had a significant impact on the development of non-handicapped children's attitudes.

Another study reported that trainable mentally retarded children who interacted with normal children in playground situations in an Ontario elementary school, exhibited more provoked aggression amongst each other than in interactions with non-handicapped children. Similarly, there was more teaching, intervening, comforting and helping behavior among handicapped and non-handicapped children than among non-handicapped children. Contrary to common belief, the researchers found that normal children do not single out or deliberately victimize trainable mentally retarded children (Zeigler and Hamilton, 1976).

The above study was replicated in a high school where non-handicapped students shared school facilities with trainable mentally retarded high school students. The results indicate that non-retarded students were less favorably disposed towards the trainable mentally retarded students than were non-retarded students in a control school. The researchers suggested that the ratio of retarded students to non-retarded students (60 to 500) was considered to be a threat by adolescents concerned with their own identities (Nash and McQuistin, 1975).

Advantage 5: Instruction tends to be individualized more frequently for non-handicapped children placed in integrated classrooms.

The close relationship between regular classroom teachers and the special education teacher appears to result in help for all children whether they be handicapped or normal (Jordan, 1974).

Related Research. Bradfield, Brown, Kaplan, Rickert and Stannard (1973) concluded that teachers can teach special and normal children in the regular classroom if instruction is individualized. Fourth-grade non-handicapped children in integrated classes made significant gains in arithmetic and reading. An unanticipated outcome of the study was that teachers found at least an equivalent number of children with learning problems from among the non-handicapped children as those who had been previously labelled handicapped.

The Preventative-Intervention Program, a program designed to solve childrens' problems prior to special services referral, was reported by Cantrell and Cantrell (1976). The program was effective in maintaining borderline intelligence, first-grade children within the regular classroom. Simultaneously, high IQ children gained higher residual achievement scores than those attained by comparable children in a control school.

Teachers who volunteered to individualize programs for learning disabled children in their regular classrooms reported that the handicapped child's presence promoted a higher incidence of individualized instruction for regular children (Marshall Independent School District, 1973).

Disadvantages of Integration and Evidence of Impact

> *Disadvantage 1: The handicapped child may not have the will, attitude or capacity to cope successfully in the regular classroom.*

"The pressure for academic achievement in a regular class may be too great and lead to failure and frustration"(Gjessing, 1972). "A child re-entering a class much like the one where he originally failed may question his ability to succeed and thus view reintegration with alarm"(Folman and Budoff, 1971). Edgerton (1967) has indicated that people with a prior history of mental illness may expend considerable effort in concealing their histories. The reintegrated child may similarly attempt to conceal past special class placement (Budoff and Gottlieb, 1974).

Related Research. Folman and Budoff (1971) report that special class children expressed a marked sense of discomfort in the presence of regular children but felt at ease and even superior to their special classmates. This finding was supported by Gottlieb, Gampel and Budoff (1974-75), who initially observed more prosocial behavior among integrated children, than among their segregated peers. However, after one year they observed a greater incidence of verbal aggressive behaviors by handicapped children than was displayed by regular classmates. They concluded that the reintegrated special class child was faced with an ongoing process of adjustment to the regular classroom situation.

Gottlieb, Nero and Associates (1977) also noted that the handicapped child, lacking confidence in his ability or self-worth, can perceive even neutral experiences as personal failures. The child may internalize the teacher's negative remarks and ultimately experience an increase in feelings of isolation and rejection.

> *Disadvantage 2: The physical integration of the handicapped child does not ensure his social integration.*

The handicapped child in the regular class tends to be isolated and rejected by his normal peers (Johnson, 1950). Similarly, regular teachers are not as concerned with the social adjustment of handicapped children as is the special class teacher (Cassidy & Stanton, 1959). The handicapped child's need for approval may thus be thwarted by both classmates and the teacher in an integrated setting.

Related Research. Goodman, Gottlieb, and Harrison (1972) hypothesized that the attitude of normal children towards their integrated peers would reflect their greater familiarity with the integrated classmate rather than with the special class child. The hypothesis was not supported. Gottlieb and Budoff (1973) replicated this study and found that integrating special class children into the regular classroom did not improve their social acceptability to normal children. The classroom environment, specifically dislike among peers whether handicapped or not, has been found by Gottlieb, Nero and Associates (1977) to be a significant contributing factor to children's social status within the classroom. The continued negative findings regarding the social acceptability of handicapped children in regular classrooms has been noted as a major disadvantage for the integrated child.

> *Disadvantage 3: The physical integration of the handicapped child does not ensure instructional integration; the integrated child may be isolated from regular class activities or required to perform beyond his level of ability.*

"There are limits to the capacity of even the best teachers to meet the needs of children whose abilities cover a wide range. Both the regular teachers' ability and training militate against extensive individualized instruction for such a heterogeneous group" (Cruickshank, 1975).

"The program goals of the special class are oriented towards vocational, occupational and social competence rather than academic achievement. However, once the handicapped child is integrated into a regular program, the goals are different, and perhaps, less appropriate"(Meyers, MacMillan and Yoshida, 1975).

Related Research. Two studies reviewed by Sussman (1974) indicate that little learning of any kind took place when teachers who believed in homogeneous streaming were assigned a heterogeneous group of children. Secondly, regular teachers expressed a lack of competence for integrating exceptional children into their classrooms. The teachers were more willing to work with a special child if a resource teacher was involved in setting up goals and objectives.

In a pre-post test comparison of regular teachers' estimated competence to teach handicapped children, the teachers in schools with special classes questioned their ability to teach educable mentally retarded, learning disabled, and emotionally disturbed children. Teachers with direct resource room assistance maintained their initial estimates of their ability to teach handicapped children successfully (Shotel, Iano, and McGettigan, 1972).

The importance of the resource room for providing a support service to teachers has been reported by Agard (1977). She noted that integrated children spent an average of two hours per day in the resource room; that this time was as important in predicting academic achievement as was regular classroom instruction; and that 40 percent of the integrated children's academic instruction occurred in the resource class.

Such findings indicate the desirability of instructional support when integrating handicapped children.

Disadvantage 4: The human, material and physical resources needed to successfully integrate the handicapped child may not be provided or used.

"In the United States legislation has mandated the provision of integrated services to handicapped children. This is in spite of the fact that there was little realization of the implications for the numbers of children involved or the resources needed. In some instances the proliferation of resource rooms can be regarded as 'tokenism' towards the integration concept"(Jordan, 1974). "Activities, materials and other personnel must be available according to the nature of the child being served. At present there are few catalogues of materials for teacher selection or the financial resources to support additional materials." (Ad Hoc Committee on the Integration of Children with Handicaps into the Regular Classroom. Calgary Public School Local #38, 1976).

Related Research. Shotel, Iano and McGettigan (1972) found that regular teachers believed they could not teach handicapped children without an array of special methods and materials. To some extent the researchers felt that special education teachers may themselves be responsible for developing this mystique. However, even when teachers do have access to a variety of materials and are aware of their availability, it was found that regular classroom teachers did not use or work closely with special education teachers in the use of these materials (Marshall Independent School District, 1973).

Agard (1977) reported a study concerning the role of resource teachers. The teachers were supplied with special instructional materials and had access to special education aides and/or consultants. These resources enabled them to provide a more intensive instructional program for handicapped children.

Question #2 - How is Integration Defined?

While there is some evidence for the belief that integrating handicapped children into the regular classroom is a desirable thing, the nature of such integration is widely contested. Most definitions of integration focus upon administrative considerations and vary from "integrating" special classes into a school by providing a classroom in the same building, to abolishing all special classes and absorbing handicapped children into the school on an age-grade basis. The following definitions are illustrative of the spectrum of administrative concerns.

> "Mainstreaming[1] implies the enrolling and teaching of handicapped learners in regular classroom programs for a large portion of the school day"(Lance, 1975) p.90).

---

[1] Throughout this paper integration and mainstreaming have been regarded as synonymous.

The Ad Hoc Committee on the Integration of Children with Handicaps into the Regular Classroom maintains that:

> "Integration is a process whereby children with special needs are being accommodated and educated in the regular classroom both at the beginning of the academic year and during different intervals in the course"(p.2).

Dirr (1974) contends that integration is the:

> "...total elimination of any semblance of specialized groupings on the basis of disability with children being assigned to grades on the basis of age and similarities to other non-handicapped children"(p.10).

Brenton (1974) offers this view:

> "Mainstreaming means identifying individual, physical and academic needs of handicapped students, assessing their possible readiness for integration on either a part-time or full-time basis; preparing the mainstream schools for the students' entry; and providing all the backup services required, including resource teachers and facilities"(p.20).

These definitions indicate concern for the amount of time spent in the regular class, the opportunity for entry into the regular class at different times during the school year, the removal of disability categories as the basis for special class placement, the preparation of schools for handicapped children and the provision of personnel, material and facility resources needed to facilitate the handicapped child's access to the regular classroom.

Kaufman, Gottlieb, Agard and Kukic (1975) define integration from an instructional perspective.

> "Mainstreaming refers to the temporal, instructional and social integration of eligible exceptional children with normal peers, based on an ongoing individually determined educational planning and programming process and requires clarification of responsibility among regular and special education administrative, instructional and supportive personnel"(p.9).

This definition highlights the specific variables that are believed to be relevant when the intent is to determine the instructional activities in which an exceptional child should participate.

1. Integration is not just the time spent in the regular classroom, nor physical proximity of a handicapped child to the regular classroom, although both variables must be considered. It encompasses the compatibility of a child's learning characteristics and edu-

cational needs with the instructional goals and practices that a teacher is able to provide in the regular classroom. It necessitates a minimum level of peer approval, not just peer interaction or physical proximity.

2. The planning of a handicapped child's program will vary with the assessment of the child's academic and social/emotional needs and the available selection of regular and/or special education, human, physical and material alternatives.

3. Whereas most educational functions are organizationally delimited to a single line of authority, mainstreaming requires an interface between regular and special education as well as among administrative, instructional and supportive services. Clarification of the delineation and assignment of responsibilities among such personnel is imperative for the provision of educational services to handicapped children.

The impact of each of these variables on the effectiveness of alternative special education instructional services has been studied in Project PRIME - Programmed Re-entry into Mainstream Education (Kaufman, Semmel and Agard, 1974). The study addresses itself to the following questions.

1. How effective is mainstreaming for mildly handicapped children? For whom is it successful and under what conditions?

2. What are the determinants of an effective educational program for handicapped children in the public schools?

3. What are the factors that promote children's development in the academic, social and emotional spheres?

While a series of papers has reported formative evaluation of the project, the results of the study are in press and should be available through University Park Press: Baltimore, Maryland in early spring, 1978.[1]

Question #3 - What is the Desired Level of Integration?

While the literature does not specifically describe levels of integration, there are many alternate strategies for integrating handicapped children into the regular classroom. Selected strategies are reported for the school system level, the school level, the classroom level and the child level.

System Level. The most comprehensive model for the provision of educational services to handicapped children is the "Cascade

---

[1] Correspondence from M. J. Kaufman, State Program Studies Branch, Bureau of Education for the Handicapped, Washington, 2nd September, 1977.

System" developed by Deno (1970) and adopted with minor revisions by the Calgary Board of Education. The model specifies seven levels of educational organization for handicapped children from Level I - those able to achieve adequately in the normal classroom, to Level VII - those requiring a residential setting.

The functional aspects of the Cascade System as reported by the Association for the Integration of Handicapped Children (1976) include:

1. The greatest number of handicapped children can be absorbed into ordinary schools with little change in existing programs.

2. The smallest number of handicapped children is served by the greatest amount of resources and services, for example, the residential hospital.

3. Between the regular classroom and residential hospital the Cascade System defines additional levels of care and treatment on a progressive scale.

4. At successive levels of the Cascade System; the severity of the child's handicap increases, the program is more expensive, and there is less chance that the child will be able to return to the regular classroom.

5. The Cascade System provides a continuous series of less restrictive alternatives which implies that handicapped children can be regularly transferred either away from or back towards the regular classroom.

As some of its advantages, Deno cites that the Cascade System:

1. Provides a mechanism (the special education resource teacher at Level II) to assess how judgments might be made at the critical boundary between regular and special education.

2. Assumes that the educational enterprise is a system constantly judging the achievement adequacy...that psychometric measures have been designed to predict, and reaffirming the in situ approach to treatments as the method of choice.

3. Provides whatever different-from-the-mainstream settings are required to control the learning variables for the individual case.

4. Tailors treatment to individual need by the use of multiple performance judges of highly variable criteria.

5. Is flexible enough to reduce essential special education enrollment while still retaining opportunities for those who require special education services.

6. Provides community-based facilities that keep children in the normal routine.

7. Places emphasis on the critical teacher/child interaction in the classroom learning environment with the rest of the organizational structure as a facilitator.

While the Cascade System provides a model upon which the planning of special educational services for a school system can be based, Dunn (1973) specifies a continuum that includes many of the types of programs suitable for inclusion in a Cascade System. The alternate plans suggested for day school operations include:

1. Special schools - only one type of exceptional child is enrolled.

2. Special classes - homogeneous groupings of children with a special education teacher.

3. Cooperative program - children enrolled in special classes with some regular class work.

4. Resource room plan - children enrolled in the regular classroom with resource room instruction for special tutoring.

5. Itinerant specialist or contact plan - children enrolled in the regular classroom have scheduled visits by an itinerant teacher.

6. Specialized consultants - work with the teacher for in-service training and some child counselling.

7. Boarding homes for day pupils - day school children who board with local residents.

8. Combined regular and special schools - serves a neighborhood area for regular pupils and the district for special education pupils. It may include elements from any of the plans listed above.

9. Interdistrict plans - exchange and joint provision of any of the above plans.

The full complement of programs would include residential school operations, hospital operations and homebound operations as well as the day school.

School Level. Hammill and Wiederholt (1972) designed a model for the provision of special education services to a school. The model includes:

1. Regular classes.

2. Non-categorical resource rooms intended to meet the needs of any child from a regular class or a special class having difficulty in school work or adjustment.

3. Self-contained classes for separate categories of handicapped children, e.g. EMR, ED, VI, etc. The special class is only intended for those children who cannot be integrated into the regular class even with the help of a resource teacher.

4. Categorical resource room for children with speech, remedial reading, auditorially impaired or visual problems that can serve as a part-time preparation for transfer to the regular class. (Higgins, 1976, pp.20-21)

The resource room would also be available to children for remedial help, after their entry into regular classes.

One of the advantages of the Hammill and Wiederholt model is that it emphasizes the educational needs of the student and not the diagnostic label. Secondly, it offers a flexible structure for the placement of children based on regular and frequent assessment of performance levels. A similar model has been implemented in Santa Monica Schools where the Madison School Plan

> "...attempts to bring hard of hearing, blind, educable mentally retarded, learning disability and emotionally disturbed children into a single school and provide them with a combined resource room - integrated regular classroom experience without grouping or according to single categories" (Hewett, 1971, p.100).

Children are grouped according to their readiness for regular classroom functioning and provided with individualized programs of instruction and behavioral management.

Classroom Level. Lilly (1971) proposes a Training-Based model for providing services to exceptional children in the regular classroom. He incorporates a "zero reject" concept in which children in regular classes would no longer be referred for special services, for these services would no longer exist and the responsibility for the child's failure would be on the teacher and the educational program. To accommodate the child's needs, the model features a change in the special educator's role from a child-centred to a teacher-educator role. This would be a person

> "...whose function would be to instruct the teacher in ways to handle the referred problem, as well as other identifiable problems within the regular classroom. At no time during the period of service would the instructional specialist remove a child from the classroom for individual work whether it be of a diagnostic or tutorial nature, for this practice in no way contributes to preparing the teacher to perform this function in the future" (p. 746).

In an earlier paper Lilly (1970) specifies that the model was advocated for the "...child whose problems can be seen as relatively mild, educable mentally retarded, emotionally disturbed, behaviorally disordered, educationally handicapped, learning disabled or brain damaged.." (p.43) and who was referred because the teacher perceived behavioral or learning problems.

The "zero reject" concept does not apply to trainable mentally retarded, severe emotionally disordered, multiple handicapped, or to children who are so deviant that they have never been enrolled in any kind of normal school.

To complement Lilly's Training-Based Model, Gallagher (1972) suggested a special Education Contract whereby the special class placement of a child would be governed by a signed contract between parents and the child's educators. The contract would specify the goals to be attained in a specified time and a review of the child's progress within two years. While the contract could be renewed, Gallagher presented the model as a means of dealing with the "zero reject" concept for children who are difficult to place.

The "fail-save" model of Adamson and Van Etten (1972) incorporates the training proposals of Lilly's model but includes alternative placement in a regular class/resource room or resource room/special class program. This model proposes that:

1. When a regular classroom teacher is concerned about the progress of a child, a methods and material consultant observes and evaluates the child's work in the classroom over a period of ten weeks. Advice is given to the teacher on strategies and materials.

2. The parents, teacher, administrator and consultant meet at the end of the ten-week period to determine whether:
   a) the child will be retained in the initial treatment stage for a further ten weeks, or
   b) the child will be referred to a resource classroom for part of each day.

If the child was referred to the resource room, his placement was reviewed within 90 days to determine whether:

a) the child will be returned to the ten-week cycle; or
b) will remain in the current program for a further ninety days; or
c) will be transferred to a special class/resource room placement for a maximum of nine months.

In the event of admission to category (c) the placement would be reviewed no later than nine months after admission and the child would either be returned to the resource room/regular class program or be referred for special class placement. In the event of special class placement the child must automatically be returned to a resource room program after two years. The special education consultant plays a vital role in this model, not only in evaluating the child's progress but also in monitoring his progress through the alternative placement levels.

Attempts to integrate the mildly handicapped child have indicated the kinds of services needed to ensure access to equal educational opportunities for children. The model presented by the Association for the Integration of Handicapped Children (1976) to the Division of Special Services and the Division of Instruction is consistent with the models used in other school jurisdictions, for example, the Indianapolis Public Schools. The model focuses on a continuum of services that reflect the first four levels of the Cascade System.

Regular Classroom - the regular class teacher has full responsibility for each child's individual program and progress, including the mildly handicapped child with special needs.

Itinerant Service - the regular class teacher retains full responsibility for each child's educational program and progress, but can obtain advice, materials, etc. from the itinerant teacher who provides supportive consultation.

Resource Room - the regular classroom teacher retains full responsibility for each child's educational program and progress, but the child is able to receive intensive, short-term remediation from a resource room teacher. The program provided by the resource room teacher should be congruent with the child's needs and the regular classroom teacher's expectations.

Resource Room - serving combination of handicaps. The regular classroom teacher retains full responsibility for each child's program and progress. The resource teacher may retain full responsibility for the educational program and progress for some other pupils, arranging for integration in the regular classroom program where possible. In addition, this teacher will serve as a resource room teacher for a limited number of students requiring short-term remediation.

Cooperative Classroom - the special education classroom teacher retains full responsibility for each child's educational program and progress. Integration into the regular program takes place whenever possible, either on an individual basis, or on a total class basis.

Self-Contained/Segregated Classroom - the special education classroom teacher has full responsibility for the child's education program. The L.A.C. team may consist of all specialists (psychologist, diagnosticians) who travel to various schools to do screening and assessments. Children may be taken to a clinic setting for this service on a short-term basis. The team provides consultative services to teachers as well as complete assessments and/or intensified remediation. (Association for the Integration of Handicapped Children, 1976)

While several of the above models have utilized the resource room concept, the practices described in these models vary widely. One "model" that is perhaps illustrative of the instructional management techniques employed in a resource room is that described by Post (1976). The resource room alternatives presented by Post were all implemented in a St. Paul, Minnesota elementary school with one alternative and the same budget usually allocated to the replaced tutoring program. The instructional practices included:

1. One-to-one tutoring - peer tutors, high school students, parents, resource room aides, the classroom teacher or special education teacher provided direct tutoring for learning disabled children.

2. Rotating learning stations - small groups of children, 3:1 ratio utilizing teacher aides spent fifteen minutes at different learning stations. Each child had individualized materials at each station and was rewarded for specified behaviors.

3. Open skills scheduling - used effectively early in the morning, each child fills out an individual schedule for the following period from activity choices listed in his individualized program. A time is fixed for oral reading with the supervising teacher.

4. High Intensity Learning System - consists of packaged self-directed and corrected reading materials. One teacher could supervise twenty children.

The advantages of the instructional intensity exhibited by such resource room models are documented by Agard (1977) as follows:

1. Resource room teachers concentrate on basic subjects.

2. Resource classes have a high verbal participation rate.

3. Resource teachers provide almost half their instruction directly either to individual students or to small groups of students.

4. Resource teachers work with relatively small numbers of students.

5. Resource teachers use seatwork activities sparingly.

6. Resource teachers ask predominantly very low level cognitive questions.

7. Teachers in resource classes give extensive feedback.

The above instructional conditions were found to contribute significantly to the students' level of attention and academic achievement.

Child Level. "Very few articles address the desired level of integration as a function of the child's handicap or educational needs. While a child's placement will be determined by his ability to successfully relate to a particular program, the integration movement is philosophically opposed to the use of disability labels for determining instructional settings. Such labels have been reported as irrelevant for establishing integration practices in some school districts. A survey of integration programs in California for mildly retarded children indicated that the 'amount' of integration practised by a school district was found to be related to the type of plan that was chosen and the attitudes of the staff, rather than to the behavior or overall intellectual ability of the retarded children in the school" (Guerin and Szatlocky, 1974, p.178).

At the child level, there has been an increased focus upon the services needed by mildly handicapped children because they are often the most difficult students to diagnose. One study that addresses this problem is the report of a U.S. Southwest Regional Task Force that examined placement problems of the learning disabled, behaviorally disordered, slow learning, culturally/linguistically different, and economically/environmentally disadvantaged children (Moore, 1976). The report has made a considerable contribution to specifying the program interventions deemed necessary for children with these specific learning problems.

Similarly a different report lists the requirements for individualizing educational programs in Texas. The programs must include:

1. a description of the child's strengths and weaknesses;
2. a statement of the skills to be mastered (goals and objectives);
3. a description of content areas to be emphasized, methods to be employed and materials to be used;
4. a statement of appropriate management methods; and
5. assurances that the child's progress will be evaluated every three months. (Education Policy Research Institute of Educational Testing Service, 1976, p.16)

Consequently, at the child level, attempts to maintain handicapped students in the regular class are based on the belief that by individualizing instruction, the child's needs will be met, although Shamker (1974) contends that:

> "...such a belief is based more on hope than fact."
> "...The integration of handicapped students will never be successful until regular education can provide for the needs of all children regardless of their needs or abilities"(p.ii).

These recent advances that specify parameters for the desired level of integration at the child level may indeed become the vehicle for individualizing instruction for all children.

Question #4 - What are the Current Levels of Integration in Other School Systems?

While there is considerable academic debate concerning the advantages and disadvantages of integrating handicapped children into the regular classroom, there have been few attempts reported in the literature to describe or evaluate current practices of integration in specific school districts. In the United States there are descriptive reports of experimental programs but no indication of whether or not these programs have been adopted into a school system's "cascade" of services. There is consensus that integration is occurring at an increased rate but little statistical data that quantifies to what extent or at which levels.

One report that examines the integration models for mainstreaming educable mentally retarded students in 47 American states reported the following levels of integration from the most to the least frequent:

1. special classes with regular class time for non-academic work, for example, physical education, art and music.
2. regular class placement with part-time resource room assistance.
3. regular class placement with itinerant teacher assistance.
4. special classes with part-time regular classes for academic work.
5. regular classes with a consultant or helping teacher available to the regular teacher or the student.
6. regular classes full-time without special help. (Watson, 1975).

Financial restrictions were cited most frequently to account for the kind of alternatives offered. The frequency of integration for different categories of handicapped children indicated that learning disabled students were integrated more frequently than educable mentally handicapped. Next were the emotionally disturbed, the hard of hearing, the speech and the physically handicapped categories. Trainable mentally handicapped, blind and deaf children were the least integrated. Intellectually gifted children were reported as mainly in regular age-grade classrooms without additional help. The results of this study indicate that, although alternative models of integration are practised throughout the United States, whether or not there has been an increase in the number of children with different handicaps who have been integrated into the regular classroom is uncertain.

A second study compared the types of integration practised before and after the California State Department of Education provided support funds for "transition programs" to reintegrate over 10,000 decertified educable mentally retarded students. (Williams, MacMillan, Yoshida and Meyers, 1974). They interviewed personnel directly involved with day-to-day instruction in the transition programs in six southern California school districts. The districts ranged in average daily attendance from 5,200 to 32,000 children and included two large, three medium and one small district.

The results of the study were as follows:

1. districts moved from self-contained classrooms for EMR students to various integrated models. Only one district placed all transition EMR students into a basically self-contained edu-

cationally handicapped class with some partial integration.

2. the integration model reported by three districts described the use of paraprofessional tutors under the supervision of credentialled personnel. Two districts used special education teachers as resource teachers for both regular teachers and the transition students.

3. students who were not able to function in the transition programs were returned to EMR, EH or learning disability groups or sent to continuation high schools in five of the school districts. The district using the educationally handicapped placement sent transition students to private schools if they could not function in the program.

Unfortunately, there were no statistical data included in the report so that quantitative comparisons with practices in the Calgary School System cannot be made from the reported literature.

Question #5 - What are the Commonly Used Objective Indicators and Measures of the Extent of Integration?

In the literature reviewed, attempts to arrive at objective indicators and measures of the extent of integration came from two sources:

1. administrators' accountability concerns for the number of dollars spent and numbers of children served by particular programs.

2. researchers' concerns for qualitative data that reflect observed changes in the type of children served by particular services or programs.

"In both instances the measures employed have been considered unsatisfactory and there remains a continued search for appropriate instruments, the time to administer them properly, and the expertise to handle the results"(Meyers, MacMillan and Yoshida, 1975). Since there are no definitive statements to be found in the literature the following points summarize possible measurement guidelines gleaned from a variety of literature sources.

1. Population Figures. The extent of integration can be measured by comparing the number of children in integrated programs (however defined) with: (a) an estimate of the number of children who could be expected to require special services; (b) longitudinal statistics of previous years' figures; (c) the total number of handicapped children in integrated and special class placements; (d) a desired criterion measure, for example, a ratio of one handicapped child to every five normal children in a total class population of 25 children (Novotny, 1974); or (e) the number of children at maximum and minimum support ends of the "Cascade" services continuum (Indianapolis Public Schools 1975).

2. Time. An index of integration was formulated by Guerin and Szatlocky (1974) and applied to descriptions of integrated

programs to establish four models of integration. The index consisted of the formula:

$$\frac{\text{Total hours of integrated instruction/pupil/day}}{\text{Total number of retarded students multiplied by the total number of instructional hours in the school day.}}$$

In another study Gottlieb and Baker (1975) used the percentage of time/week that handicapped students were integrated in the regular classroom as a variable for predicting the number of smiling responses the student would receive.

3. Student Characteristics. "New Mexico has developed a model for the placement of learning disabled students based upon the severity level of the handicap. The severity level was determined by the child's educational success in the regular program" (Moore, 1976, p.21). Similar measures have been developed for other handicapped categories with varying degrees of specificity. The extent of integration may ultimately reflect the particular characteristics of the student as well as the amount of time spent in particular programs.

4. Program Costs. "The extent of integration has been found to reflect the choice of alternate models provided by a school district"(Guerin and Szatlocky 1974). "Such decisions will be based upon the demands for resources, control of the budget, compliance with legal guidelines and the need to maintain a positive, public image"(Meyers, MacMillan and Yoshida 1975). In Alberta, the provincial Department of Education assigns grants to meet the needs of particular categories of handicapped pupils by providing a special education teacher who must be "employed full-time exclusively for teaching pupils who require special instruction" (Ballance, Kendall and Saywell, 1972). Such grants have an impact upon the extent of integration practised in a school jurisdiction.

Question #6 - What are the Alternate Methods of Defining Handicap and What are the Advantages and Disadvantages of Each?

There are two major approaches towards defining handicap reported in the literature: definitions based upon medical labels and definitions that focus upon the educational needs of a child.

The first approach is based upon medically derived disability labels which serve to categorize the child as suitable for special class placement or remedial services of some kind. In California, Campbell, Todd and O'Rourke (1971) report the state definition of handicapped persons as:

> "'Handicapped persons' means mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled or other health impaired persons who by

> reason of their handicapping condition cannot succeed in a vocational or consumer and homemaking education program designed for persons without such handicaps, and who for that reason require special educational assistance or a modified vocational or consumer and homemaking education program"(p.77).

Legislative definitions in Canada reflect a concern for appropriate assessment procedures when defining the handicapped. In Saskatchewan a "handicapped child" means:

> "A person between the ages of six and twenty-one who is handicapped mentally, physically, socially or emotionally and who is so designated by the district Superintendent of Education, or locally employed superintendent, following consultation with the parents or legal guardians and the appropriate medical, psychological, social service and guidance and special education staff" (Csapo, 1973, p.31).

The more general definition of Dunn (1973) specified three criteria which had come to be accepted as desirable when defining the handicapped child. These included:

1. deviation from normal development;
2. inability to make progress in the regular school system; and
3. need for special education services.

Dunn's definition states that:

> "Exceptional pupils are those (1) who differ from the average to such a degree in physical or psychological characteristics, (2) that school programs designed for the majority of children do not afford them opportunity for all-round adjustment and optimum progress, (3) and who therefore need either special instruction or in some cases special ancillary services, or both, to achieve at a level commensurate with their respective abilities"(p.2).

However, the utility of these criteria has been seriously questioned (Kendall, 1971; Monaco, 1976 and Weintraub, 1971). "The medical approach towards the classification of children is of limited use for defining educational handicaps"(Bersoff, 1972). "In many cases the diagnostic assessment is made on the basis of inadequate, dubious or irrelevant information. Specifically, intelligence tests, which were the most frequently used diagnostic tool, have not been consistent with a child's language, environment and cultural heritage, nor were they standardized on similar children so that norms could be interpreted"(Dirr, 1974).

Secondly, in the past, the inability of ordinary school programs to accommodate the handicapped child has been too easily accepted. The whole integration movement is premised on a belief that regular classes can provide the services needed by handicapped children. If so, the attempt to label the child as inadequate for regular class placement should be shifted to identifying the manner in which the regular classroom is inadequate to meet the needs of the special child.

Thirdly, the assumed positive social and educational benefits of special class placement for handicapped children has proved to be inconclusive at best and possibly seriously inadequate.

Kendall (1971) summarizes the disadvantages of matching categorically labelled children to special class placements.

1. There is little resemblance between highly specific conditions such as blindness and deafness, and the very vague general conditions (mental retardation, emotional disturbance; learning disabilities) which form the basis for exclusive diagnostic categories for the majority of children with specific needs in the public school system.

2. Unlike deaf and blind children, the special educational needs of children with these global or diffuse cognitive or adjustment problems are extremely varied and heterogenous.

3. We cannot infer an educational prescription or technique from the descriptive labels that have been developed for the children. They do not fit into a homogeneous treatment model.

4. The role of the teacher is different. The training of teachers of deaf children (for example) has to be directed towards the acquisition of highly specific skills and competencies. Despite the existence of formidable certification programs for different categories of special education teachers, examination of the training programs shows that they are either extremely general or somewhat faddist. There is still as little agreement about how to prepare teachers of mentally retarded or emotionally disturbed children as there is about how to educate the children in general.

5. The number of children involved is very much greater - somewhat between 10 and 100 times, depending upon whether you are a school board treasurer or a special educator (p.24).

The second approach towards defining handicap attempts to address some of the disadvantages mentioned above by focusing upon the learning problems that a handicapped child may have. The Wayne County Committee for the Study of Children with Learning Disabilities (1969) listed five criteria that a definition of handicap should meet. The definition must:

1. sharpen the image of those children to be observed and help distinguish them from others who have different problems;

2. provide implications for teacher education and training;

3. suggest diagnostic methods and remedial procedures;

4. suggest administrative patterns; and

5. alert the educator to the fact that he has the major responsibility as the educational specialist, for the nature of the educational program.

The definition of handicap advocated by the Ad Hoc Committee on the Integration of Children with Handicaps into the Regular Classroom (1976) is consistent with these criteria. Their report states that:

> The term handicap refers to a broad range of kinds and degrees of exceptionability (sic) to such an extent that a student requires a modification of the regular school program in the form of special assessment and/or special program alternatives which could include additional materials.

It is interesting to note that the definition requires a modification of the regular program through the use of additional materials, rather than alternate class placement.

As can be seen from the definitions of integration previously listed, (see pages 15 - 17) the concern of educators and advocates of integration in the literature, is for those children with minimal intellectual behavioral and/or emotional handicaps. These children constitute the borderline group of children who could be placed in either special or regular classes. Moore (1976) states that "... for students who are deaf, blind, crippled or mentally retarded, there now exists a relatively explicit set of definitions, which are operational through quantifiable criteria... (and) organized systems of education program models and instructional methodologies" (p.1). Consequently, much of the recent literature has attempted to identify the particular learning deficiencies of the borderline group of handicapped children (Mosley and Spicker, 1975; Quay, 1973).

One particularly successful attempt to identify five classes of children who are experiencing learning difficulty was accomplished by a Regional Task Force that collected data from Colorado, Arizona, Nevada, New Mexico, Utah, and the U.S. Bureau of Indian Affairs. They were charged with the task of specifying

> "how to diagnostically determine what (and which condition) is causing the learning difficulty; to what degree; to define the appropriate program interventions; and to clarify program responsibility (regular education, special education or both)"(Moore, 1976, p.6).

The Task Force identified five classes of children with learning problems:

1. children who are learning disabled (sometimes referred to as children with specific learning disabilities or as educationally handicapped);
2. children who are behaviorally disordered (sometimes referred to as emotionally handicapped, emotionally disturbed or educationally handicapped);
3. children who are slow learners;
4. children who are culturally and/or linguistically different;
5. children who are economically and/or environmentally disadvantaged.

Definitions of handicap that meet the criteria demanded by the Wayne County Committee now appear to be available for a broad range of exceptionality.

Question #7 - What are the Kinds of Support Facilities and Services Required by Teachers in Regular Classrooms?

The integration of handicapped students into the regular classroom is considered to have a deleterious effect upon the practices and attitudes of classroom teachers unless extensive personnel and material resources are readily available. Kendall (1970) contends that the previous training of teachers; inadequate or unavailable in-service programs; insufficient consultants, resources, teacher-aides and/or volunteers; unfavorable teacher attitudes; and poor classroom climate can create barriers to the successful integration of handicapped students.

The impact of integration on regular classroom teachers has been studied by Williams, MacMillan, Yoshida and Meyers (1975). They reported the transition programs of six southern California school districts that had generally neutral or positive effects on the social climate of the regular classroom. The majority of teachers did not change their allocation of time nor their instructional practices for the total class. Twenty-nine percent of the teachers did report that having a handicapped child in their classrooms required more time for:

1. extra assistance to be provided to the child,
2. special instruction that took more time and energy,
3. managing class disruption because of the child's behavior,
4. other children who picked on the EMR transition child,

5. preparing special materials for the transition child, and

6. working with an aide, tutor or volunteers.

Teachers were found to make more referrals for special instruction and for disciplinary reasons and more requests for remedial materials and/or other assistance. Similarly, they expressed concerns related to accountability and the time needed for planning, individualizing instruction, and meeting the instructional needs of the total class.

A second study which surveyed the practices of 31 school districts in Wayne County with regard to integrating children with learning disabilities indicated that teachers preferred:

1. Increased training (in-service) related to helping a variety of children within the regular classroom setting.
2. Services beneficial to children in the following order:
   a) consultative help for the classroom teacher,
   b) consultative services for identified children,
   c) organizing groups within the classroom,
   d) supplying teachers with special instructional materials
3. Services most helpful to teachers in the following order:
   a) consultative help to the classroom teacher,
   b) supplying special instructional materials,
   c) diagnostic help to organize groups within the classroom,
   d) consultative help to identified children (Wayne County Committee for the Study of Children with Learning Disabilities, 1969).

From these comments the kinds of support desired by teachers in the regular classroom consist of four main categories:

1. pre-service and in-service training.

2. the support of additional personnel, both consultative and classroom aides/volunteers.

3. adequate time for instructional planning, working with other resource personnel and implementing desired classroom management techniques.

4. special instructional materials.

Pre-Service and In-Service Training. Witty (1975) has outlined various issues that are considered important in teacher training for the integration of handicapped children. She recommends that:

1. Shared decision-making is a key to viable teacher education programs.

2. Competencies to be developed should be specified during the initial phases of the program.

3. The variability of learners is as important in training teachers as it is for the children whom they are teaching.

4. The teacher's ability in self-evaluation is as important as the evaluations conducted by supervisors and trainers.

5. A variety of field experiences in different settings is essential to deal with children of diverse abilities and backgrounds.

6. Special attention and support should be given to the positive affective behaviour of participants.

7. Instructional leadership in the program should be shared by a variety of persons.

8. Emphasis should be placed on the development of diagnostic and prescriptive teaching skills.

9. "Trainees should be given opportunities to interact with parents and other professionals in identifying the needs of the children" (Witty, 1975, p.137).

The Alberta Special Education Study Report (1977) reviewed several studies that indicated that (1) teacher trainee attitudes, knowledge, and skills in working with handicapped students could be improved in pre-service college courses; and (2) learning theory-based strategies and assistance in implementing classroom management techniques are more effective than seminar training.

The findings related to the impact of in-service training experiences on the attitudes of teachers towards integration are mixed. Haring, Stern and Cruickshank (1958) found that 15 workshop experiences significantly increased the knowledge and understanding of teachers but that increases in knowledge did not necessarily effect an increase in a positive attitude on the part of teachers. Sussman (1974) reported that three studies do suggest that university-based workshops were effective in improving the attitudes of regular teachers towards mainstreaming. Shotel, Iano and McGettigan (1972) found that the initial positive attitudes of teachers was not maintained after a year's experience with an integrated resource room program. Finally, a study designed by Safer and Agard (1975) that tested whether or not in-service training would improve the attitudes of regular teachers towards integration and provide them with new techniques and management skills, reported that such premises were not supported. In-service training related to only one of four measures of teacher attitudes and that measure more directly concerned teacher knowledge related to the appropriate placement of handicapped students.

Support Personnel. Sattler and Notari (1973) reported that teachers in four school districts in Illinois were enthusiastic about integration provided that supplementary support, such as teacher teaming and/or a crisis teacher knowledgeable about children's social-emotional difficulties, were readily available. Similar findings were reported by Cantrell and Cantrell (1976), who found that borderline intelligence children could be maintained within the regular classroom if support teachers, specifically trained in classroom problem analysis and intervention strategies, were available for classroom assistance and child-related instructional planning. Such immediate availability was found to be sufficient in most cases for dealing with pupil problems. A third study that questioned principals' attitudes towards integrating handicapped children reported that resource room teachers were favoured more highly than itinerant teachers as supportive help for regular teachers (Payne and Murray, 1974).

"Additional benefits to regular teachers have accrued from the opportunity to observe resource room functioning; to observe exceptional children of various kinds; and to interact informally with resource room personnel"(Shotel, Iano and McGettigan, 1972; and Marshall, 1976). The Alberta Special Education Study Report (1977) concluded that the consulting teacher role for special education teachers was critical for implementing integrated programs. The report suggested that:

1. The role of the special education teacher needs to be re-evaluated.

2. The consulting role for the special class teacher is feasible.

3. Resource programs benefit from continuing cooperation between the special class and regular class teachers.

4. Training programs for consulting teachers have successfully been tested.

5. Teaching behaviours of regular class teachers, and their attitudes towards handicapped children, can be modified in a positive direction, by formal and in-service training.

6. Administrative support appears to be a crucial factor in both gaining and maintaining staff acceptance of the consulting teacher approach to special education, and the active participation by regular class teachers in implementation of this approach.

7. Finally, it is apparent that special class teachers, regular class teachers, and their administrators would benefit from orientation and in-service relative to the re-development of special education personnel. In this regard Brickell's (1961) statement has relevance.

> "The most successful innovations are those which are accompanied by the most elaborate help to teachers as they begin to provide the new instruction"(p.26) (Alberta Special Education Study Report, 1977, p.100).

Adjustment of Teaching Loads. The South Carolina State Department of Education (1974) has specified the criteria by which teachers of handicapped children in resource rooms are eligible for state aid. The criteria include the specification of appropriate handicapped children, a minimum teaching time of 180 minutes/day, full-time assignment to serving identified handicapped students, and a case load that varied with the severity and kind of handicap. Similar criteria have been issued by the Pupil Personnel Services Branch of the Alberta Department of Education (Ballance, Kendall and Saywell, 1972) but they apply only to special class placement.

As yet there have been no reports of similar guidelines or specifications for regular teachers involved in integrated programs. The Ad Hoc Committee on the Integration of Children with Handicaps into the Regular Classroom (1976) has recommended that:

> "...for each stage in the cascade model, a pupil teacher ratio be established, (p.5) ... (and because) the integration of a child with handicaps into the regular classroom often requires planning time beyond normal expectation...that planning time be allotted, or relief in terms of support personnel be available"(p.6).

Additional Materials and Equipment. The following recommendation of the Ad Hoc Committee on the Integration of Children with Handicaps into the Regular Classroom (1976) are indicative of the concern that regular teachers have related to the availability and adequacy of materials and equipment.

> "It is recommended that whenever an integration situation occurs, there will immediately be available resources in the forms of materials, strategies and support personnel which can provide a significant ongoing reference for the teacher in the regular classroom"(p.6).

One study in the United States reported the frequency of use of audio tapes, controlled readers, overhead projectors, SRA kits, AVK cards, tapes, RFU units and specially programmed workbooks by regular teachers and teachers who volunteered to individualize instruction for handicapped children in a school that provided a resource room for learning disabled children (Marshall Independent School District, 1973). While regular classroom teachers were aware of the available materials, they did not use or work closely with resource room teachers in the use of those materials. There were, however, some cooperative efforts in the use of programmed workbooks. Shotel, Iano and McGettigan (1972), in their discussion of the need for special methods and materials, suggested that special educators had been responsible for the "mystique" associated with the need for additional special materials. However, it is now unrealistic to expect teachers to accept with confidence the major responsibility for teaching the child without such materials.

Question #8 - What are the Structural/Architectural/ Equipment Requirements for Programs of Integration?

The most comprehensive document that addresses the question of structural/architectural barriers to integration is the handbook, Building Needs for the Handicapped, developed under a U.S. Federal Grant of Title III of the Elementary and Secondary Education Act in conjunction with the Windham Southeast Supervisory Union, Battleboro, Vermont. The handbook specifies the ideal building needs for accessing the blind and visually handicapped; the deaf and hearing handicapped; people with medical problems which limit endurance for steps; those with mobility problems; with or without the need for assistance equipment such as crutches, canes, walkers and wheelchairs; and for the unusually tall or the very short. The information presented was checked for accuracy and completeness by people with handicaps, and the workbook includes their recommendations.

Two indexes are used to code the information. The first is according to impaired function and includes the following categories:

- Wheelchair user with good arm function.
- Wheelchair user with poor arm function.
- Crutches and long leg brace(s) (One or both legs braced from waist or hips down).
- One or 2 crutches (any type), one or 2 canes (any type) with or without short (from knee down) leg braces.
- Walker (Walkerette) - Rigid or hinged for movement, with or without brace(s).
- Limited function in leg(s) only.
- Limited function in arm(s) and leg(s).
- Limited function in arm(s) only.
- Medical handicap (cardiac, respiratory, problems of aging, etc.).
- Language disorder (inability to read warning or directional signs).
- Height - UNUSUALLY short or tall.
- Blind or with insufficient sight to permit eyes to guide body, read signs.
- Hearing handicap insufficient to hear warnings, speech (deaf or hard of hearing).

The second index specifies a comprehensive list of areas in school systems that may need modification. These areas include:

- Auditorium
- Cafeteria
- Classrooms - State Standards
- Doors
- Drinking Fountain
- Elevator
- Entrances - Exits
- Gymnasium

- Home Economics
- Laboratory
- Library
- Lockers (Clothes & Book Storage)
- Parking
- Ramps
- Shop Areas
- Shower Rooms
- Swimming Pool
- Telephone
- Toilets
- Warning Signals

The specifications listed represent the ideal that should be included in new buildings. This would incur an estimated additional cost of between 0-1% with the exception of installing an elevator. However, the handbook developers point out that many modifications can be made, and often inexpensively, to reduce some of the barriers in existing buildings. Examples of such modifications include:

1. Loud whistle, and someone informed about reason for use, to indicate need for help in bathroom or elevator.

2. Switch of classrooms to accommodate the person with special needs from floor to floor to avoid stairs; from one room to a larger one to allow space for a wheel chair; from one room to one with fewer hazards for the visually handicapped, or with better acoustics or light for the hearing handicapped.

3. The initial purchase of adjustable, moveable, separate desks and chairs to meet the needs of any student, handicapped or not, at all times.

4. Survey of all bathrooms in order to select the one which accommodates a wheel chair user with the fewest changes.

5. Long extension on telephone used by students to be accessible to wheel chair user and in private, or in school with many telephones, have one at suitable height for wheel chair user, short person, etc.

6. Removal of one or more front and/or back row seats in an auditorium for use by wheel chair users or people with long leg braces and crutches.

7. Magnet door closers on bathrooms to avoid need to add or change locks.

8. Buddy system to alert deaf or blind student of fire alarm; to write out student loud speaker announcements for the hearing handicapped.

9. Paper cups available to wheel chair user or very short persons if drinking fountain is too high.

10. Removal of toilet staff partitions when space is inadequate for wheel chairs but with curtain added for privacy.

The utility and cost efficiency of the above suggestions are supported by Mainstream Incorporated, a consulting company whose analysis of the modifications needed in commercial and industrial buildings indicates that:

> "A careful analysis of what needs to be done as well as what does not need to be done can significantly reduce the cost of making facilities accessible. The average cost of making 29 facilities (less than one million square feet) accessible was less than five cents per square foot" (p.5).

The guidelines for ensuring the accessibility for handicapped students to school facilities are available, and the cost of modifications appear to be so reasonable that it should not be a barrier to integrating handicapped children into the regular classroom.

Question #9 - What is the Nature of Evaluation Instruments Used to Assess Integration Programs?

"Most of the attempts to evaluate the aspects of integration referenced in this literature review have utilized standardized, norm-reference intelligence tests, achievement ratings, attitude scales, sociometric ratings, interview schedules and opinion surveys. The methodological inadequacy of many of these instruments has been frequently mentioned" (Kirk, 1964; Myers, 1975; Rhodes, 1976) "and continues to cause problems for the conscientious researcher" (Safer and Agard, 1975).

There have been two major attempts to conduct comprehensive evaluations of the impact that legislation had upon the reintegration of handicapped children in the United States.

Project PRIME, the results of which have not yet been published, used a battery of 28 self-report, peer rating, teacher rating, administrator rating, observer rating and classroom observation instruments in order to develop descriptive systems of: "(a) ...the educational treatments or services the child was receiving, (b) the educational environment in which he received these services, and (c) the child's academic, social and emotional development" (Kaufman, Seminel and Agard, 1973, p.6). The study included 650 classrooms and over 2,000 normal and handicapped children in 43 Texas school districts.

A second study by Meyers et. al. (1975) evaluated the California Special Educational Programs as specified by the state Master Plan for Education. Section 7026 of the plan required that the evaluation shall include:

1. the degree to which the responsible local agency has served all individuals with exceptional needs.

2. the degree to which the responsible local agency has integrated individuals with exceptional needs into the general school population and the impact of such integration on individuals with exceptional needs and the rest of the student body.

3. the extent to which individuals with exceptional needs meet the objectives set for them in written instructional plans.

4. a general assessment of the relative effectiveness of programs conducted under this chapter compared to special education programs not conducted under this chapter (Meyers, MacMillan and Yoshida, 1975, p.6).

One objective of the study focused upon the use of a modified Metropolitan Achievement Test to assess the achievement gains of children in certain stated objectives. The test was administered to over 850 educable mentally retarded and regular students in 12 school districts. The study is one of the first to address the methodological difficulties of using achievement tests with special students.

A second objective was to provide descriptive data of models developed for transition programs. A comprehensive interview instrument was used to survey six school districts' personnel directly involved with the instructional programs for handicapped children.

SUMMARY OF THE FINDINGS

The findings are summarized according to the four objectives for the literature review. The objectives are listed in the Introduction to this report, and are repeated in the text below.

Research Techniques and Variables

Objective 1: To identify research techniques and variables of interest for the design of this study.

There is little evidence of experimental research in the literature. Studies are reported using comparison groups with pre- and post-designs. Studies are also reported using pre- and post-design with no comparison group, and using a single-shot no-comparison design. Two large evaluation studies with multiple-instrument, multiple-design approaches were identified.

General difficulties with finding instruments to measure effects on the handicapped child are reported. Standardized norm-referenced intelligence tests, achievement ratings, attitude scales, sociometric ratings, interview schedules and opinion surveys have all been used. Standardized instruments are often inappropriate for a non-typical population, and valid norms are lacking.

Inspection of the design of the majority of reported studies reveals a typical set of variables which are built into the selected design. The variables are displayed below as though they were organized into a quasi-experimental study with a dependent variable of "student". Other studies may organize the variables in different ways.

Independent Variable(s)

a) Extent of segregation of classroom and/or school

Intervening Variables

a) Interaction between handicapped and non-handicapped

b) Labelling of the handicapped

c) Service provided to pupils

Contingent Variables

a) Nature of the handicap

b) Consultative and other support to teachers

c) Teacher commitment and capacity

d) Standards and curriculum of classroom

e) Physical properties of school environment

Dependent Variable(s)

a) With respect to handicapped student:
   - i. academic achievement
   - ii. social achievement
   - iii. peer modelling
   - iv. self-concept

b) With respect to non-handicapped student:
   - i. acceptance of the handicapped
   - ii. help to the borderline handicapped

Information on details of operational definition of some of these variables is provided in the previous section of this report. In particular, "Extent of segregation of classroom and/or school" is discussed under Question #3, "Nature of the handicap" is discussed under Question #6, and "Consultative and other support to teachers" is discussed under Question #7.

Probable Effects of Integration

Objective 2: To contribute to knowledge of the probable effects of integration.

The extensive literature on the general topic of integration has produced few, if any, definitive conclusions on effects of integration. Two reasons are identified in explanation that much of the literature is prescriptive and theoretical rather than result-oriented; and that much of the research is not capable of wide generalization because of use of small, specific samples and an inadequate measure of controlling variables.

The bulk of the research which is available applies to the special class/educably mentally handicapped/learning disabled student. For cognitive achievement of EMH students, results would indicate that either an integrated class is favored, or that location of instruction is less important than quality of instruction. No support for the contribution of the segregated classroom to cognitive achievement was identified. Results related to social acceptance and achievement of EMH students in integrated settings are highly variable, with some evidence that social acceptance of the mentally handicapped child is not assured and may remain a problem. The one study which was identified as having done long-term follow-up of handicapped students into the work setting found no difference between those who had been educated in segregated or integrated settings. There is evidence that the learning disabled child benefits academically from the segregated setting.

Given the lack of definitions and paucity of background information in many of the studies, the firmest conclusions which can be drawn are as follows: "special" students need special forms of instruction. This instruction can be provided in a variety of types of settings, and evidence does not support the absolute superiority of any one form of setting over another. Social acceptance and social development of the handicapped child may be assisted by the integrated classroom, but there is evidence that some problems may continue to exist.

No studies were reviewed which discussed the sensory handicapped. Some studies discussed the physically, orthopedically handicapped; however, these are too few in number for conclusions to be drawn.

Integration in Other School Systems

Objective 3: To contribute to knowledge of actual implementation activity, and results of such activity, in other school systems.

No statistical information was reported in the literature to allow an accurate gauge of extent of integration. There is a general impression that extent of integration is on the increase, but no statistics are available to confirm this impression. One study of 47 American states reports that the type of handicapped student most frequently integrated names in the following order from most to least frequently integrated: learning disabled; educably mentally handicapped; emotionally disturbed; hard of hearing; blind; speech and physically handicapped; trainable mentally handicapped; deaf.

An extensive literature is available on resources needed by teachers and provided by school systems. Detail is provided under Question #7. Question #3 describes various models which have been used.

Resource Support

Objective 4: To identify the types of resource support which are thought to be necessary for integration.

Resources required by the regular classroom were found to group into four categories:

1. Pre-Service and In-Service Training: Several studies indicate that teachers request additional training to deal with handicapped children. Such training should provide all of diagnostic, classroom management and individualized teaching skills.

2. Support Personnel: Teachers are found to request provision of supportive, consultative personnel for help in crisis situations or in discussion of day-to-day management of the learning situation. Teacher aide for the integrated classroom is also desirable.

3. Provision of Extra Time: An integrated classroom can require planning time beyond the normal, as well as extra classroom time given to the handicappped child or to managing situations created by the presence of the child. Extra time, obtained by either or both of reduced teaching load or provision of relief personnel, is recommended.

4. Additional Materials and Equipment: The special student often requires special teaching materials. The regular teacher without access to such materials is hampered in her ability to teach handicapped students.

The student who is physically handicapped may require structural modifications to buildings and/or classrooms. A summary of a comprehensive handbook, Building Needs for the Handicapped, is presented in the findings under Question #8. The authors estimate that an increase in cost of less than 1% is required to make a new building facility suitable for use by physically handicapped persons.

BIBLIOGRAPHY

Adamson, G., & Van Etten, G. Zero Reject Model Revisited: A Workable Alternative. Exceptional Children, 1972, 38, 735-738.

Ad Hoc Committee on the Integration of Children with Handicaps into the Regular Classroom. Calgary Public School Local #38 A.T.A. "Toward Getting Some of It Together". A Position Paper on the Integration of Children with Handicaps into the Regular Classroom. Presented at C.S.R. Meeting December 8th, 1976.

Agard, J. Resource Classes: Purpose and Program. Paper Presented At Annual Meeting of the American Association on Mental Deficiency, May 31, 1977.

Alberta Special Education Study Report. "Literature Review". Alberta Education, Planning and Research Branch, 1977.

Association for Integration of Handicapped Children. Integration of Handicapped Children into the Regular School System - Brief to Calgary Board of Education, April, 1976.

Awen, E., Haynes, A.B., Post, L. "Minimum Conflict Mainstreaming." Paper Presented at the Annual International Convention. The Council for Exceptional Children, Chicago, Illinois, April 4-9, 1976. (ERIC Document, Reproduction Service No. ED 122 477).

Ballance, K.E., Kendall, D.C., Saywell, P. Legislation for Exceptional Children in Canada Supplementary Report: June 1972. Special Education in Canada, 1972, 47, (1), 19-33.

Bersoff, D.N., Kabler, M., Fiscus, E., Ankney, R. "Effectiveness of Special Class Placement for Children Labelled Neurologically Handicapped." Journal of School Psychology, 1972, 10 (2), 157-163.

Birkland, H. A Model to Serve Students with Special Needs in Regular Vocational Programs for Minnesota. January, 1975.

Bradfield, R.H., Brown, J., Kaplan, P., Rickert, E., Stannard, R. "The Special Child in the Regular Classroom." Exceptional Children, 1973, 39, 384-390.

Brenton, M. "Mainstreaming the Handicapped." Today's Education, 1974, 63, 20-25.

Bruininks, R.H., & Rynders, J.E. "Alternatives to Special Class Placement for Educable Mentally Retarded Children." Focus on Exceptional Children, 1971, 3 (4), 1-14.

Bryan, T.H. "Peer Popularity of Learning Disabled Children." Journal of Learning Disabilities, 1974, 7 (10), 621-631.

Bryan, T.H. "Peer Popularity of Learning Disabled Children: A Replication." Journal of Learning Disabilities, 1976, 9 (5), 320-322.

Budoff, M., & Gottlieb, J. "A Comparison of EMR Children in Special Classes with EMR Children Who Have Been Re-integrated Into Regular Classes." Cambridge, Mass. Volume 3, Number 50. Research Institute for Educational Problems, 1974. (ERIC Document Reproduction Service No. ED 108 434).

Calgary Board of Education. "A Report on the Integration of Handicapped Children in Calgary Public Schools." September 28, 1976.

Campbell, L.W., Todd, M. & O'Rourke, E. "Work Study Handbook for Educable Mentally Retarded Minors Enrolled in High School Programs in California Public Schools." Sacramento, California, California State Department of Education, 1971.

Cantrell, R.D., & Cantrell, M.L. "Preventative Mainstreaming: Impact of a Supportive Services Program on Pupils." Exceptional Children, 1976, 42, 381-386.

Cassidy, V.M., & Stanton, J.E. "An Investigation of Factors Involved in the Educational Placement of Mentally Retarded Children, 1959." (ERIC Document Reproduction Service No. ED 002 801).

Cartwright, G.P., & Cartwright, C.A. "Gilding the Lilly: Comments on the Training Based Model." Exceptional Children, 1972, 39, 231-234.

Carvajal, A.L. "Predictors of Four Criteria of Self-Concept in Educable Mentally Retarded Adolescents." Exceptional Children, 1972, 39, 239.

Chaffin, J.D. "Will the real 'Mainstreaming' Program Please Stand Up!" (or ...Should Dunn have done it?). Focus on Exceptional Children, 1974, 6 (5), 1-19.

Christie, L.S., & McKenzie, H.S. Minimum Objectives: A Measurement System to Provide Evaluation of Special Education in Regular Classrooms. Special Education Area College of Education and Social Science, Burlington, Vermont: University of Vermont, 1974. (ERIC Document Reproduction Service No. ED 102 786).

Christopolos, F., & Renz, P. A Critical Examination of Special Education Programs. The Journal of Special Education, 1969, 3 (4), 378.

Cruickshank, W.M. The False Hope of Integration. Slow Learning Child, 1975, 21 (2), 67-83.

Collister, L. A Comparison of the Long Range Benefits of Graduation from Special Vs. Mainstream School for Mildly Mentally Handicapped Students. Seattle Public Schools, Washington Dept. of Planning Research and Evaluation. June, 1975. (ERIC Document Reproduction Service No. ED 117 870).

Csapo, M. Litigation or Legislation for Emotionally Disturbed Children in Canada, 1973. Special Education in Canada, 1973, 47 (3), 28-34.

Deno, E. Special Education as Developmental Capital. Exceptional Children, 1970, 37, 229-237.

Dirr, P.J., & Laughlin, C.A. Individualizing Instruction for Handicapped Children. A Paper for the Instructional Technology Course for Teachers. October, 1974. (ERIC Document Reproduction Service No. ED 105 675).

Dunn, L.M. Exceptional Children in the Schools: Special Education In Transition, New York: Holt, Reinhart & Winston, 1973.

Dunn, L.M. Special Education for the Mildly Retarded: Is Much of It Justified? Exceptional Children, 1968, 35, 5-22.

Education Policy Research Institute of Educational Testing Service, Change in Education: Three Policy Papers on the Implementation of the 'Education Of All Handicapped Children Act', PL 94-142. Princeton, New Jersey: Educational Testing Service, Research Bulletin, May 1976.

Edgerton, R.B. The Cloak of Competence: Stigma in the Lives of the Mentally Retarded. Berkely, California: University of California, 1967.

Flynn, T.N., & Flynn, L.A. The Effect of a Part-time Special Education Program on the Adjustment of EMR Students. Exceptional Children, 1970, 36, 680-681.

Folman, R., & Budoff, J. Attitudes Towards School of Special and Regular Class Adolescents. Studies in Learning Potential, 1971, 2, 32.

Gallagher, J.J. The Special Education Contract for Mildly Handicapped Children. Exceptional Children, 1972, 38, 527-535.

Galloway, J.R. An Evaluation: Regional Program for Exceptional Children: A Model for Mainstreaming of Exceptional Children in School Divisions of Culpeper, Madison and Orange Counties, Virginia, School Year 1973-1974. Richmond: Virginia State Department of Education, 1974. (ERIC Document Reproduction Service No. ED 105 694).

Gjessing, H. Integration of the Handicapped: What Demands Will be Made? Slow Learning Child, 1972, 19 (1), 28-39.

Goodman, H., Gottlieb, J., & Harrison, R.H. Social Acceptance of EMR's Integrated into a Non-graded Elementary School. American Journal of Mental Deficiency, 1972, 76, 412-417.

Gottlieb, J., & Baker, J.L. The Relationship Between Amount of Integration and the Sociometric Status of Retarded Children. Paper presented at the American Educational Research Association Convention, Washington, D.C., March, 1975.

Gottlieb, J., & Budoff, M. Social Acceptability of Retarded Children in Non-graded Schools Differing in Architecture. American Journal of Mental Deficiency, 1973, 78, 15-19.

Gottlieb, J., & Budoff, M. Attitudes Towards School by Segregated and Integrated Retarded Children: A Study and Experimental Validation, Studies in Learning Potential. Cambridge, Mass.: Research Institute for Educational Problems, 1972, 2 (35).

Gottlieb, J., Gambell, D.H., & Budoff, M. Classroom Behaviour of Retarded Children Before and After Re-integration Into Regular Classes. The Journal of Special Education, 1974, 9, 263-270.

Gottlieb, J., & Nero and Associates, Inc. Social Influences and Social Consequences of Mainstreaming. Paper Presented at Annual Conference of American Association on Mental Deficiency, New Orleans, May 31, 1977.

Guerin, R., & Szatlocky, K. Integration Programs for the Mildly Retarded. Exceptional Children, 1974, 41, 173-180.

Hammill, D.D., & Wiederholt, J.L. The Resource Room: Rationale & Implementation. Fort Washington, Pennsylvania: Journal of Special Education Press, 1972.

Haring, N.G., Stern, G.G., Cruickshank, W.M. Attitudes of Educators Towards Exceptional Children, Syracuse University Press, 1958.

Hayball, H.L., & Dilling, H.J. Study of Students from Special Classes who Have Been Returned to Regular Classes. Research Report to The Board of Education for the Borough of Scarborough, 1969.

Hoek, J.H. Summary and Evaluation of the Resource Room for the Educable Mentally Handicapped and the Opportunity Group Student, School Year 1972-1973. Michigan: Portage Public Schools, 1973. (ERIC Document Reproduction Service No. ED 094 515).

Hewett, F.N., Artuso, A.A., Taylor, F.D., & Stillwell, R.J. Demonstration and Evaluation of an Engineered Classroom Design for Emotionally Disturbed Children in the Public School; Phase Two: Primary and Secondary Level, Final Report. U.S. Department of Health, Education and Welfare; 1969. (ERIC Document Reproduction Service No. ED 038 809).

Higgins, F.D. Mainstreaming: An Overview and Update. Oregon School Study Council, Bulletin, 1976, 19 (7), 1-34.

Iano, R.P., Ayers, D., Heller, H.B., McGettigan, J.F., & Walker, V.S. Sociometric Status of Retarded Children in an Integrative Program. Exceptional Children, 1974, 40, 267-271.

Indianapolis Public Schools. Mainstreaming in IPS. Indianapolis, 1975. (ERIC Document Reproduction Service No. ED 116 368).

Jenkins, J.R., & Mayhall, W.F. Development and Evaluation of A Resource Teacher Program. Exceptional Children, 1976, 42, 151-154.

Johnson, G.O., & Kirk, S.A. Are Mentally Handicapped Children Segregated in the Regular Grades? Exceptional Children, 1950, 17, 65-68, 87-88.

Jordan, J.B. CEC Information Centre, 'Invisible College on Mainstreaming Addresses Critical Factors in Implementing Programs'. Exceptional Children, 1974, 41, 31-33.

Kaufman, M.J., Semmel, I. & Agard, J.A. Project Prime An Overview, May, 1973. U.S. Office of Education, Bureau of Education for the Handicapped, Division of Research.

Kendall, D.C. Some Thoughts About the Integration of Educable Mentally Retarded (EMR) Children in Regular Classes. Journal of Education, 15, 1969, 26-35.

Kendall, D. Towards Integration. Special Education in Canada, 1971, 45 (1), 19-34.

Keogh, B.K. & Levitt, M.L. Special Education in the Mainstream: A Confrontation of Limitations. Focus on Exceptional Children, 1976, 8 (1), 9-11.

Kirk, S.A. "Research in Education", Mental Retardation: A Review of Research, Ed. H.A. Stevens & R. Huber, Chicago: The University of Chicago Press, 1964.

Lance, W.D. Learning Resource Systems for Special Education. Theory into Practice, 1975, 14 (2), 89-94.

Lilly, M.S. A Training Based Model for Special Education. Exceptional Children, 1971, 37, 745-749.

Lilly, M.S. Special Education: A Teapot in a Tempest. Exceptional Children, 1970, 37, 43-49.

Markell, C., Exceptional Students in Regular Classes: Interviews with 43 North Dakota Elementary Teachers. North Dakota: Minot State College, 1976. (ERIC Document Reproduction Service No. ED 117 912).

Mainstream, Inc. Accessibility Consultants. The Cost of Accessibility: A Report on the Costs of Making Places of Employment Accessible for Handicapped People.

Marshall Independent School District. The Impact of Resource Room Instruction on Principal and Teachers' Attitudes. Texas: Marshall Independent School District, 1973. (ERIC Document Reproduction Service No. ED 078 612).

Meyers, E.C., MacMillan, D.L., & Yoshida, R.K. Evaluation of Special Education Programs, Paper Presented at the Second Annual Conference and Exhibition on Testing and Measurement, Los Angeles County Superintendent of Schools, Pasadena, February 20, 1975.

Monaco, T.M. Mainstreaming, Who? Science and Children, 1976, 13, 11.

Moore, J.J. Examining Placement Problems Relative to Certain Handicappped and Non-handicapped Children: A Regional Task Force Report. January, 1976. Southwest Regional Resource Centre, OE Contract No. OEC-0-74-7893.

Mosley, W.J., Spicker, H.H. Mainstreaming for the Educationally Deprived. Theory into Practice, 1975, 14 (2), 73-81.

Murphy, H.E. A Comparison of Program Outcomes of Mainstreamed Categories of Handicapped with Non-handicapped Students in Minnesota Area Vocational Technical Institutes. Unpublished Doctoral Dissertation, University of Minnesota, 1976.

Nash, C.B. & McQuistin, A. Sharing School Facilities With the Trainable Retarded: A Study of Sharing Secondary School Facilities with Senior Trainable Mentally Retarded (Age 14-21). Ontario: The Ministry of Education, 1975.

Norwalk Board of Education, Handbook for Learning Centres. Connecticut: Norwalk Board of Education, 1972. (ERIC Document Reproduction Service No. ED 098 779).

Novotny, P.A. Mainstreaming the EMR Is Neither a Panacea Nor a Simple Solution: A Research Study. 1974. (ERIC Document Reproduction Service No. ED 101 522).

Payne, R. & Murray, C. Principals' Attitudes Towards Integration of the Handicapped. Exceptional Children, 1974, 41, 123-125.

Post, C.K. The School Resource Program: Alternative Tutoring Models for Delivering Supportive Services to L.D. Children in Mainstream Education, 1975. (ERIC Document Reproduction Service No. ED 113 868).

Pugmire, J. & Farrer, K. A Program to Assist Educational Personnel to Teach Students of Wide Variability in Regular Classrooms. Director's Annual Progress Report (July 1, 1970 to June 30, 1971). Logan, Utah: Utah State University, 1971. (ERIC Document Reproduction Service No. ED 054 069).

Quay, H. Special Education: Assumptions, Techniques and Evaluative Criteria. Exceptional Children, 1973, 40, 165-170.

Rapier, J., Adelson, R., Carey, R., & Croke, K. Changes in Children's Attitudes Towards the Physically Handicapped. Exceptional Children, 1972, 39, 219-223.

Reger, R. What Does 'Mainstreaming' Mean? Journal of Learning Disabilities, 1974, 7 (8), 57-59.

Sattler, J. & Notari, C. Results of Questionnaire on Integration of Non-sensory Handicapped Children, 1973. (ERIC Documents Reproduction Service No. ED 081 149).

Shamker, B.C. Mainstreaming and Its Underlying Issues. Unpublished doctoral dissertation, Saint Louis University, 1974.

Shotel, J.R., Iano, R.P., & Mettigan, J.F. Teacher Attitudes Associated with the Integration of Handicapped Children. Exceptional Children, 1972, 38, 677-683.

Safer, N.D. & Agard, J.A. The Effects of In-service Training for Regular Class Teachers Within a Mainstreaming Model. May 1975. U.S. Office of Education, Intramural Research Program, Bureau of Education for the Handicapped. September, 1976.

Smythe, P.C. & Stennett, R. Centralized Vs Decentralized Classes for TMR: An Unsuccessful Search of the Research Literature. Special Education in Canada. 1972, 46 (3), 12-15.

South Carolina State Department of Education. The Resource Room: A Practical Approach to Providing Instruction for Mildly Handicapped Children. Columbia: South Carolina State Department of Education, 1974. (ERIC Document Reproduction Service No. ED 107 044).

Sussman, S. The Organization of Education for Learning Handicapped Pupils: A Review and Recommendations. Toronto, Ontario: York Borough Board of Education, 1974. (ERIC Document Reproduction Service No. ED 091 912).

Title III of the Elementary and Secondary Education Act in Conjunction with the Windham Southeast Supervisory Union, Building Needs for the Handicapped. Battleboro, Vermont, 1974-75.

Watson, M. Mainstreaming: The Educable Mentally Retarded. Washington: National Education Association, 1975. (ERIC Document Reproduction Service No. ED 111 117).

Wayne County Committee for the Study of Children with Learning Disabilities. Learning Disabilities Reconsidered: A Report, 1967-1969. 1969. (ERIC Document Reproduction Service No. ED 033 487).

Weininger, O. Integrate or Isolate: A Perspective on the Whole Child. Education, 1973, 94 (2), 139-146.

Weintraub, F.J. Recent Influences of Law on the Identification and Placement of Children in Programs for the Mentally Retarded. 1971. (ERIC Document Reproduction Service No. ED 048 685).

Williams, E.H., MacMillan, D.L., Yoshida, R.K. & Meyers, C.E. How District Personnel Evaluated California's Transition Program. 1975. (ERIC Document Reproduction Service No. ED 116 442).

Witty, E.P. Training to Handle Learning and Behavioral Problems in the Regular Classroom. Journal of Teacher Education, 1975, 26 (2), 135-138.

Ziegler, S. & Hambleton, D. Integration of Young TMR Children into Regular Elementary School. Exceptional Children, 1976, 42, 459-461.

Report #2: STATISTICAL DATA AND DESCRIPTION

A Report of Analysis of Secondary Statistical Data, with Description of Organization of Special Education Services

Concerning: Size of Calgary Public School System
Extent of Integration

What is the current status of integration in the Calgary Board of Education?

TABLE OF CONTENTS

Page

Introduction 2-3

Methods 2-3
  Documents Analyzed in this Report 2-3
  Procedures 2-4
  Reporting Format 2-4

Presentation of the Findings: Calgary Public School System 2-4
  Total School Populations of the CBE 2-4
  Regional Organization of Schools 2-6

Presentation of the Findings: Extent of Integration . . . 2-6
  A. The Division of Special Educational Services . . . 2-6
  B. Organization of the Special Education Department . 2-8
    Materials to Support Integration 2-10
    Transportation Patterns of Students in Special Education Programs 2-10

Summary of the Data 2-11

Appendix A: "Programs - Integration." Special Education - January 1978 2-13

Appendix B: Student Services Enrollment - Calgary Board of Education - May 1978 2-33

LIST OF TABLES

Page

Table I: Number of Schools, Teachers and Pupils Operated Under the Calgary Board of Education; with Statistics of Average 2-5

Table II: Departments of the Division of Special Education Services 2-7

Table III: Numbers of Students, Classes and Teachers in the Special Education Department 2-9

Table IV: Means of Transportation for Students in EMH and Learning Disabled Special Classes: row frequency in percentages 2-11

Report #2: Statistical Data and Description

What is the current status of integration in the Calgary Board of Education?

INTRODUCTION

One of the topics of interest in the study was the extent to which the Calgary Board of Education has actually implemented integration activity. This report presents an analysis of descriptive and secondary statistical material provided by various central offices of the Board administration. The intent is to provide a description of the size of the various school populations, and to provide description of integration services sponsored by the CBE.

METHODS

Documents Analyzed in this Report. The following sets of documents were provided by the Board administration, and have been used in preparation for this report.

1. A paper entitled Student Services. Special Education. "Programs - Integration". January 1978. 22 pages.

2. May 1978. A two-page sheet from Student Services headed "Student Services Enrolment", shows numbers of pupils, classes and staff for all special classes.

3. Class lists from all Special Education teachers. Lists showed name, address and telephone number for all students. Some were year-end (April 1978) lists showing recommended disposition of the pupil for the coming year, an I.Q. measure, a teacher rating of social adjustment, and an indication as to transportation mode of the student.

4. Copies of "Monthly Report of Number of Pupils by Grade and School", for September 1977. The report is an aggregate of statistics presented on a monthly basis by the principal of each school.

5. Map of Calgary with divison into area zones, and job

description of the Associate Superintendent - Area (revised June 1977).

6. Some information was retrieved verbally over the telephone from an appropriate individual. Statistics on transportation, numbers of staff in the Learning Assistance Centres and numbers of visiting teachers were obtained in this way.

Procedures. The majority of the documents listed above had been supplied to the research office in preparation for study design. After preliminary write-up, telephone calls and appointments were made with CBE staff persons to secure any additional required information. Opportunity was taken to discuss any possible ambiguities in interpretation of data.

Reporting Format. The paper entitled "Program Integration", distributed by the Special Education Department, is appended in full at the back of this report. The Findings section provide summary treatment of the material in the paper.

PRESENTATION OF THE FINDINGS: CALGARY PUBLIC SCHOOL SYSTEM

Total School Populations of the CBE. Table I below presents statistics of numbers of schools, teachers and pupils in the public school system in Calgary. The student count is that reported in September 1977.

Inspection of Table I indicates that the Calgary public school is comprised of approximately 200 schools, 4200 teachers and 85,000 pupils. The average statistics reflect the pattern of schools which are bigger in size at the higher grade levels. The average numbers of teachers for elementary, junior and senior high schools is 15, 27 and 71 respectively. The average ratio of pupil/teacher drops slightly at the higher grade levels. As explained in footnote 1, "teacher" means certificated teaching personnel, and some of the teaching staff hold specialized positions which do not include a home room of students.

It should be noted that some teachers employed by the CBE are not assigned to a class within a particular school. Instances would be the itinerant teacher for the sensory impaired, the visiting teachers and the Learning Assistance staff. These teachers are not entered into the statistics in Table I. They will be discussed in a later section on Student Services. They number approximately 100, and addition of this number would not materially change the substance of Table I.

Table I

Number of Schools, Teachers and Pupils Operated Under the Calgary Board of Education; With Statistics of Average

School Level[3]	No. of Schools	No. of Teachers[1]	No. of Students[2]	Average: Teachers/School	Average: Pupils/Teacher
Elementary	124	1839	40,539	15	22
Elementary-Junior	18	412	7,815	23	19
Junior	27	729	14,179	27	19
Junior-Senior	5	261	4,405	52	17
Senior	12	848	17,190	71	20
Special	10	74	590	7	8
TOTALS	196	4163	84,718		

---

[1] "Teachers" is defined as certificated personnel. The figures will include some individuals who do not carry a home room of students, such as principals and administrative staff, librarians, etc.

[2] "Students" includes ECS (kindergarten) children. Special class students located in regular schools are included in the count under the appropriate grade level.

[3] Elementary schools extend usually from Grade I-VI, junior high from Grades VII-IX, and senior high from Grades X-XII.

Regional Organization of Schools. The CBE system is divided into five geographic areas, each under the jurisdiction of an Associate Superintendent. The areas are: North (34 schools), West (38 schools), East (39 schools), South West (37 schools), and South East (36 schools). The job description of the Associate Superintendent -- Area includes: participation with members of the community for the objective of maintaining strong community relations, coordination of activities of school principals, evaluation of performance of the principals, and "the development of plans and programs for the schools under his or her jurisdiction."

PRESENTATION OF THE FINDINGS:
EXTENT OF INTEGRATION

Findings are reported in two sections, according to organizational patterns of the Board administration.

Section A, headed the Division of Special Educational Services, is concerned with all extra-normal services provided by the CBE.

Section B, the Special Education Department, is concerned specifically with the special classes in both the segregated institutions and the regular schools. Results are presented in a format to lend themselves to discussion of models of integration.

A. The Division of Special Educational Services

The Division of Special Educational Services is organized into seven different departments. Table II following is a reproduction of a descriptive sheet circulated by the Division.

Four of the seven departments are comprised of individuals who act on a floating basis among schools. The Visiting Teacher Department, the Psychology Department, the Speech Pathology Department and the Attendance Department fall into this category. The Guidance Department is comprised of the secondary level guidance counsellors. The counsellors are assigned to particular schools. Some teach in addition to filling a counselling funding, and others do not. The remaining two departments are the only two whose staff serve an actual teaching function (other than the part-time counsellors who teach in addition to counsel). The Special Education Department is comprised of the teachers of the special classes, and the Learning Assistance Centre Department operates remedial/tutorial stations for learning disabled students.

Numbers of specialists employed under each of these departments follows:

Visiting Teachers: 32
Psychologists: 16.9 FTEs (full-time equivalent)
Speech Pathologists: 15.6 FTEs
Attendance Officers: 5
Learning Assistance Centres: 1 central clinic and 6 area

Table II

Departments of the Division of Special Educational Services

DIRECTOR

Asst. to Director

VISITING TEACHER DEPARTMENT

Children with social, emotional, or academic problems which interfere with the child's progress in school, may be referred to the Visiting Teacher by the school and/or the home. The Visiting Teacher attempts to help resolve the problem by:

1. COUNSELLING with the child and/or parents on a limited time basis only. Referral to other agencies is made if more counselling appears desirable.

2. CONSULTING with parents, teachers, other Special Education personnel, psychiatrists, other medical personnel, agencies, etc. in

order to obtain the necessary information to help in resolving the problem.

3. COORDINATING the plans of action to be taken by the child, his parents, the school and other personnel involved. Most Visiting Teachers work in the elementary schools, spending approximately one half a day per week in each school. Two Visiting Teachers work in the junior and senior high schools.

PSYCHOLOGY DEPARTMENT SENIOR PSYCHOLOGIST

The Psychology Department provides diagnostic and, when time permits, counselling or remedial services to all schools for children who, because of learning, behavioural or other problems may require special placement, a modified program, remediation or counselling.

The psychologists then work with school and other Special Education personnel in planning for the children. Referrals are accepted from teachers through principals and directly from parents.

SPEECH PATHOLOGY DEPARTMENT SENIOR SPEECH PATHOLOGIST

Function:
To provide assessment and treatment service for students with speech, language or hearing problems.

Problems Encountered:
Articulation difficulties
Stuttering
Delayed language development
Voice Disorders
Symbolic Disorders
Hearing Losses

Method:
Referrals from principals or parents. Assessment and treatment normally carried out in child's home school.

Parents and school staffs given suggestions for dealing with communicative disorder

problems.

Major emphasis on elementary and special education levels.

ATTENDANCE DEPARTMENT SENIOR ATTENDANCE OFFICER

Regular school attendance is compulsory under the Alberta School Act, for all children aged 6 to 16 years.

The Attendance Department is concerned with aiding the child, the school, and the parents, in keeping children in regular attendance at school.

Since children who have attendance problems often have other related problems, close liaison is maintained with other departments in the Division of Special Educational Services, and with other social agencies.

Referrals are accepted from principals or parents.

LEARNING ASSISTANCE CENTRE DEPARTMENT SUPERVISOR

The Learning Assistance Centre specializes in diagnostic and treatment services for children referred to the Centre who have severe learning disorders.

Remediation in the reading and mathematics areas are provided for the student at a Central Clinic and Area Clinics.

The Learning Assistance Centre staff of Clinicians and Tutors also works closely with teachers and parents.

An in-service role of training remedial tutors in the areas of reading and mathematics is also a major function

Criteria for Referral
1. Children in Year 2 through Year 9.
2. Children with an I.Q. of 90 or above, as indicated by an individual intelligence test.
3. Children whose reading or arithmetic achievement is one and one half years or more below their present level or grade placement.

Locations:
1. Central Clinic Education Centre 268-8229.
2. Area Clinic #1 Southwood Elem. 253-2929.
3. Area Clinic #2 Highwood Elem. 282-7542.
4. Area Clinic #3 Alice M. Curtis Elem 255-5611.
5. Area Clinic #4 Killarney Elem. 249-8340.
6. Area Clinic #5 Varsity Acres Elem. 286-9584.
7. Area Clinic #6 Ernest Morrow 272-1964

SPECIAL EDUCATION DEPARTMENT SUPERVISOR

The Special Education Department is concerned with providing special facilities, curricula, and specialized instruction for exceptional children who are unable to make adequate progress in the regular classroom.

In assessing the child's needs for special class placement the total resources of the Division of Special Educational Services may be used.

SPECIAL CLASSES ARE PROVIDED FOR:
1. Mentally Disadvantaged children.
   (a) Trainable Mentally Handicapped (T.M.H.)
   (b) Educable Mentally Handicapped(E.M.H.
2. Physically Handicapped Children.
   (a) Teachers for children who are home confined or hospitalized.
3. Sensory Handicapped Children.
   (a) Hearing-Handicapped.
   (b) Visually Impaired
   (c) Blind
4. Learning Disabled Children.
   (a) Learning Disability "N". (Neurological)
   (b) Learning Disability "E" (Emotional).
   (c) Observation ("O") Classes.
   (d) Adaptation Classes for children with adjustment problems
   (e) Margaret House for severely disturbed children.
5. Institutions
   (a) William Roper Hull Home.
   (b) Wood's Christian Homes.
   (c) Alberta Children's Hospital.
   (d) City of Calgary Detention Centre.

GUIDANCE DEPARTMENT SUPERVISOR

Guidance services are presently provided by Secondary school counsellors in grades 7 - 12.

Guidance helps each student succeed academically by helping him recognize his strengths and limitations. It also helps him identify his interests, aptitudes, achievements and the careers he can pursue through the process of decision making.

Guidance counsellors also provide group testing services and work with parents by discussing their child's educational plans or problems.

clinics with a total of about 550 student spaces, total of 8 remedial clinicians and 22½ remedial tutors. (Tutors are professional teachers, clinicians are professional teachers with a master's degree.)

Special Educational Department: 134 classes and 148.5 staff for a student total of 1,270 registered pupils, plus 2.5 kindergarten classes with 2.5 staff.

Guidance Counsellors: 100 FTEs distributed among all secondary schools. Smaller schools will have less than 1 FTE (i.e. part-time teacher/counsellor), and larger schools will have more than 1 FTE (i.e. full-time counsellor).

B. Organization of the Special Education Department.

For a complete description of Special Education services, as written by the Special Education Department, see Appendix A.

To quote from Table II above:

> *The Special Education Department is concerned with providing special facilities, curricula, and specialized instruction for exceptional children who are unable to make adequate progress in the regular classroom.*

As of May 1978, there were 1,270 pupils registered in Special Education programs. All but 72 of these pupils are registered into special classes. Total number of classes is 134, and the total service delivery staff of the Special Education Department is 148.5. The 72 non-class pupils are fully integrated learning or vision impaired children, and they are served by 6.5 itinerant teachers. (The 6.5 is included in the total of 148.5)

Summaries of the breakdown of pupil numbers by types of class are presented in Table III below. A full breakdown is shown in Appendix B at the back of this report.

The special classes are divided into five main categories, with kindergarten classes added as a special category. The kindergarten classes are all for the hearing handicapped.

Table III

Numbers of Students, Classes and Teachers in the Special Education Department

	Students	Classes	Teachers
Educable Mentally Handicapped	474	44	44
Sensory Handicapped			
: in classes	67	11	11
: integrated	72	--	6.5
Hospital, Institutional, Homebound	228	26	28
Learning Disabilities	156	20	21
Trainable Mentally Handicapped	273	33	38
Kindergarten, Hearing Handicapped	--	2.5	2.5

A total of 11 teacher aides are hired by the Board. They are in addition to the teaching staff listed in Table III. Two (2) work with the hearing handicapped, one (1) works with the visually handicapped, and eight (8) are placed with trainable classes.

Of the 134 special classes represented in Table III, 71 are located in regular schools, 61 are within segregated institutions, and 2 are comprised of the home confined. Of the 71 special classes located in regular schools, 48 are within the elementary school levels and 23 are within a secondary (junior or senior high) level.

The institutions represented in the table are:

school in a children's hospital: 11 classes
two homes for socially and/or emotionally maladjusted children and teenagers: 10 classes
detention centre for youths under legal detention: 3 classes
an elementary school for learning disabled children: 10 classes
a small treatment home for autistic children: 1 class
two schools for the trainable mentally handicapped: 26 classes.

The paper by the Special Education Department in Appendix A makes reference to various forms of partial integration practised by the 71 special classes within the regular schools. Information on this topic can be found in Reports #5, 6 and 7 (from Principals, Regular Teachers and Special Education Teachers) of this document.

The CBE offers, in addition to the above described classes, a program for the gifted (staff of 2), and classes in English as a Second Language. These programs are not of interest for the purposes of this study, and will not be considered further.

Materials to Support Integration. A Special Education resource centre, with one librarian and a library clerk, is available for the use of special education teachers. Regular teachers can make use of it for assistance with a handicapped child. Special classes are centrally budgetted for provision of materials on a request basis.

Transportation Patterns of Students in Special Education Programs. Students who use the Learning Assistance Centres generally attend the centre for 1 hour/day on a two or three days a week basis. The centres are stationary, so the students must travel to them. Many students use the city public transit.

Information provided by the Transportation Department of the CBE indicates that 38 charter busses and 5 taxis are operated for the benefit of the special class students. Some special class students also travel by public transit service, and mileage allowance is paid to parents on occasion when a child lives outside bussing range. Statistics were not available on frequency of either of these arrangements for the special education students.

The 38 busses are organized into 5 routes, according to destination and to type of handicap:

i. School A for the trainable mentally handicapped - 11 busses
: 146 children to School A
: 16 children to 4 other schools

ii. School B for the trainable mentally handicapped - 6 busses:
: 48 children to School B
: 30 children to 3 other schools

iii. School C for the learning disabled - 7 busses
: 81 children to School C
: 9 children to 2 other schools

iv. School D, the hospital school - 8 busses
: 55 children to School D
: 9 children to 1 other school

v. Low Vision and Hard of Hearing - 6 busses
: 60 children to 4 different schools

The total of students bussed is 454, or approximately 1/3 of all special class students. The 5 taxis transport a total of 14 students to 3 schools, with no taxi going to more than one school. The average number of children transported per bus and per taxi is 11.9 and 2.8 respectively.

As the description of the bus routes indicates, the busses are employed mainly in transporting either the sensory impaired or the children who travel to segregated settings. Table IV below shows transportation patterns for the EMH and Learning Disabled class children. The data were aggregated from individual class lists provided by the special class teachers.

Table IV

Means of Transportation for Students in EMH and Learning Disabled Special Classes: row frequency in percentages

Type of Class	Type of Transportation					
	Charter Bus	Army Bus	Walks	Public Transit	Other	Total
EMH Junior	10.2%	3.4%	18.6%	54.2%	13.6%	100%
EMH Jr. - Int.	16.0%	-	29.2%	44.3%	10.4%	100%
EMH Intermediate	4.2%	1.4%	21.1%	73.2%	-	100%
EMH Senior	11.3%	0.8%	12.8%	72.2%	3.0%	100%
LD, in regular school	50.0%	-	10.5%	18.4%	21.1%	100%

The proportion of EMH students using public transit ranges from about 1/2 to 3/4. Proportions varying between 12% and 30%, at the different age levels, walk to school. One-half (1/2) of the learning disabled students are transported by charter bus.

SUMMARY OF THE DATA

1. There are approximately 200 schools, 4200 teachers and 85,000 pupils in the Calgary public school system.

2. Calgary schools are organized into five geographic zones with an Associate Superintendent in each area.

3. There are 32 Visiting Teachers, 16.9 Psychologists, 15.6 Speech Pathologists and 5 Attendance Officers for the city. About 550 students can attend a Learning Assistance Centre at any one time. There are 134 special education classes. Counselling is provided in the secondary schools, with a total of 100 full-time equivalent positions available.

4. Special classes are grouped according to five classifications: Educable Mentally Handicapped, Sensory Handicapped (vision and hearing), Hospital and Institutional, Learning Disabled, and Trainable Mentally Handicapped.

5. Slightly over half of the special classes are in regular schools; slightly under half are in segregated institutions.

6. About 2/3 of the special classes in regular schools are in the elementary divisions; about 1/3 are in the secondary levels.

7. About 1/3 of the special class students are transported by charter bus or taxi. The bussed students tend to be the sensory impaired, or those who attend the segregated institutions. Of the students in special classes in the regular schools, about 1/5 of the learning disabled and 1/2 - 3/4 of the EMH students use public transit to go to school. Between 10% and 30% of the different age levels of EMH and learning disabled students walk to school.

2-13

APPENDIX A

"Programs - Integration"

by: Department of Special Education
Student Services
Calgary Board of Education
January 1978

(Statistical Data)

2-14

STUDENT SERVICES

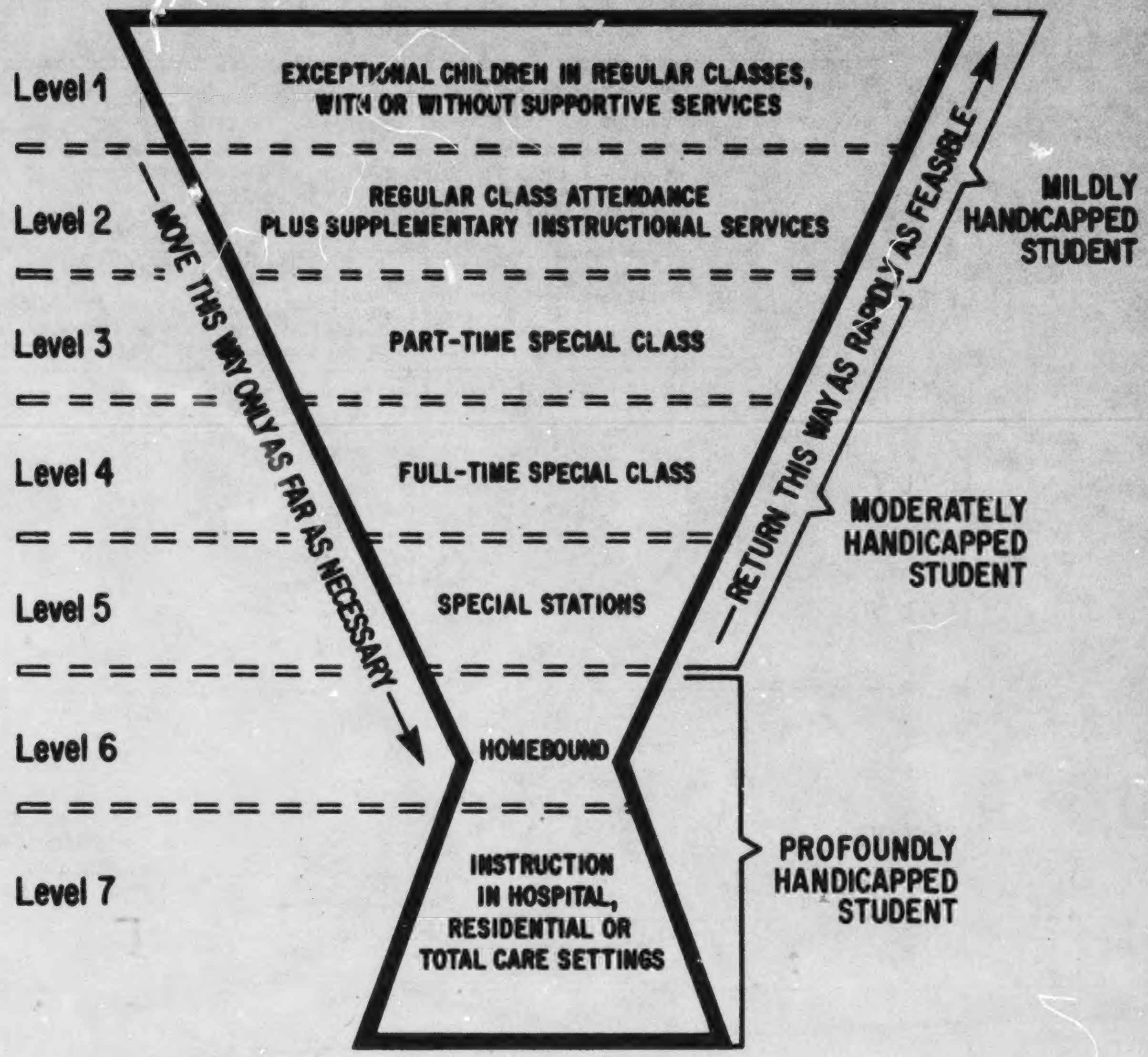
SPECIAL EDUCATION

Programs - Integration

January 1978

2-15

The Cascade System of Serving Handicapped Students


Level 1
EXCEPTIONAL CHILDREN IN REGULAR CLASSES, WITH OR WITHOUT SUPPORTIVE SERVICES
Level 2
REGULAR CLASS ATTENDANCE PLUS SUPPLEMENTARY INSTRUCTIONAL SERVICES
Level 3
PART-TIME SPECIAL CLASS
Level 4
FULL-TIME SPECIAL CLASS
Level 5
SPECIAL STATIONS
Level 6
HOMEBOUND
Level 7
INSTRUCTION IN HOSPITAL, RESIDENTIAL OR TOTAL CARE SETTINGS
MOVE THIS WAY ONLY AS FAR AS NECESSARY
RETURN THIS WAY AS RAPIDLY AS FEASIBLE
MILDLY HANDICAPPED STUDENT
MODERATELY HANDICAPPED STUDENT
PROFOUNDLY HANDICAPPED STUDENT

From Mainstreaming: Helping Teachers Meet the Challenge, by the National Advisory Council on Education Professions Development (p. 8), as adapted from Evelyn Deno, "Lessons Learned in the EPDA Exceptional Children Program," unpublished report to the Bureau of Educational Systems Development, U.S. Office of Education, July 1975.

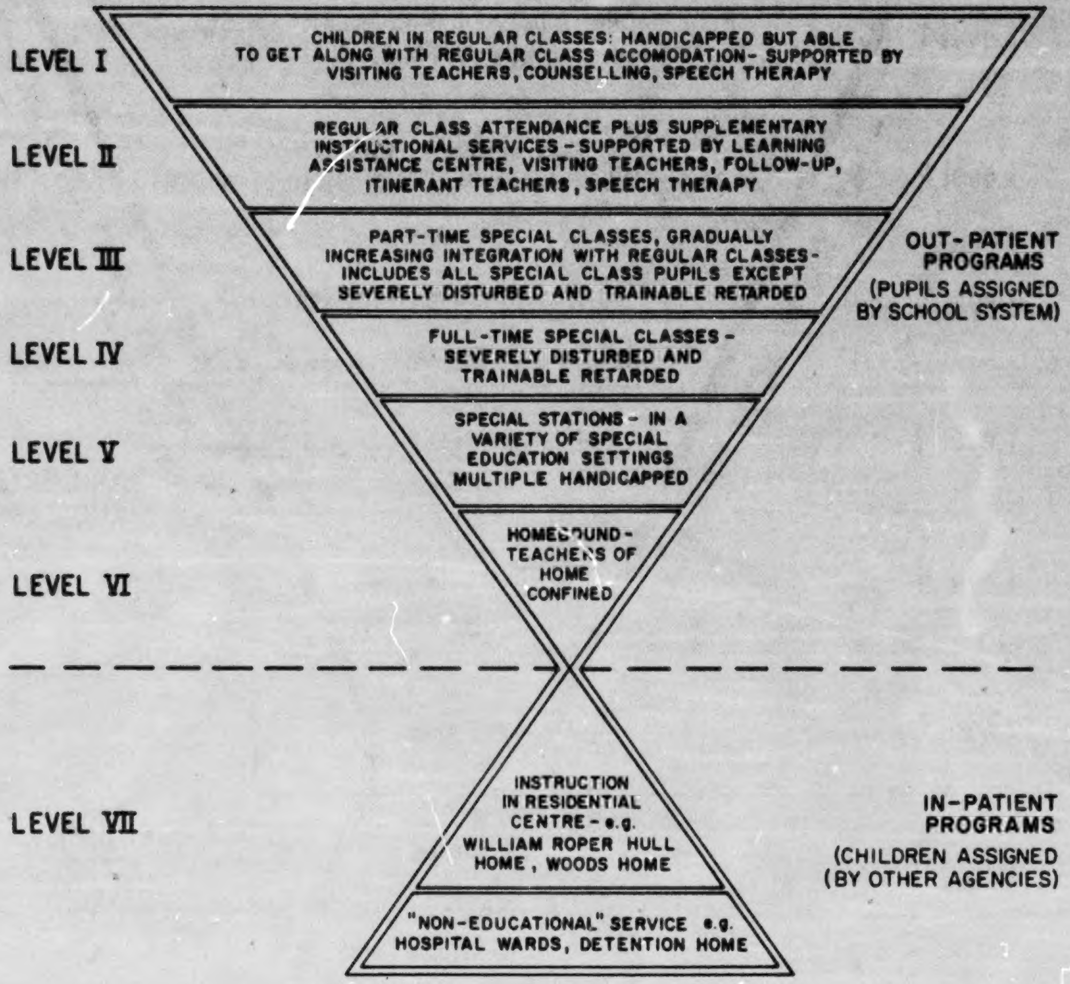

LEVEL I
CHILDREN IN REGULAR CLASSES: HANDICAPPED BUT ABLE TO GET ALONG WITH REGULAR CLASS ACCOMODATION- SUPPORTED BY VISITING TEACHERS, COUNSELLING, SPEECH THERAPY
LEVEL II
REGULAR CLASS ATTENDANCE PLUS SUPPLEMENTARY INSTRUCTIONAL SERVICES - SUPPORTED BY LEARNING ASSISTANCE CENTRE, VISITING TEACHERS, FOLLOW-UP, ITINERANT TEACHERS, SPEECH THERAPY
LEVEL III
PART-TIME SPECIAL CLASSES, GRADUALLY INCREASING INTEGRATION WITH REGULAR CLASSES - INCLUDES ALL SPECIAL CLASS PUPILS EXCEPT SEVERELY DISTURBED AND TRAINABLE RETARDED
LEVEL IV
FULL-TIME SPECIAL CLASSES - SEVERELY DISTURBED AND TRAINABLE RETARDED
LEVEL V
SPECIAL STATIONS - IN A VARIETY OF SPECIAL EDUCATION SETTINGS MULTIPLE HANDICAPPED
LEVEL VI
HOMEBOUND - TEACHERS OF HOME CONFINED
OUT-PATIENT PROGRAMS
(PUPILS ASSIGNED BY SCHOOL SYSTEM)
LEVEL VII
INSTRUCTION IN RESIDENTIAL CENTRE - e.g. WILLIAM ROPER HULL HOME, WOODS HOME
"NON-EDUCATIONAL" SERVICE e.g. HOSPITAL WARDS, DETENTION HOME
IN-PATIENT PROGRAMS
(CHILDREN ASSIGNED (BY OTHER AGENCIES)

Figure 2

The Adapted "Cascade System" as Used by the
Division of Special Education Services
Calgary Board of Education

LEVELS OF INTEGRATION

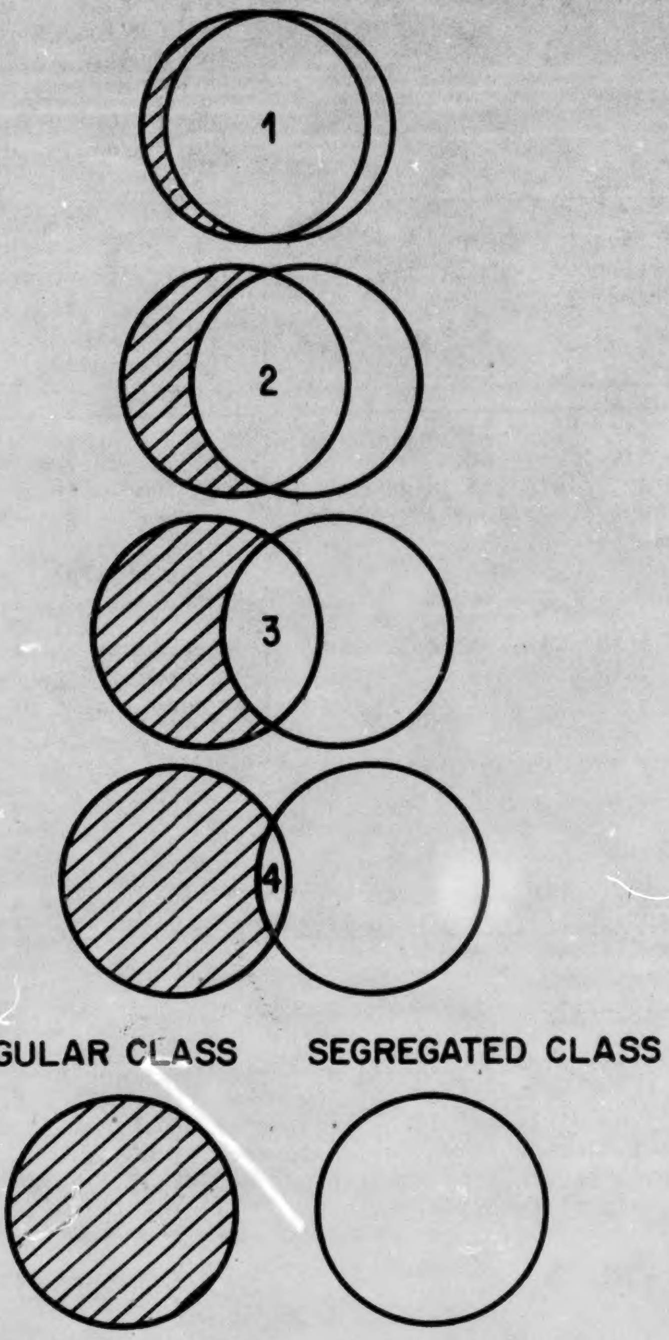

1
2
3
4
REGULAR CLASS
SEGREGATED CLASS

Figure 3

2-18

LEVELS OF INTEGRATION

Level	Aims
I Academic Classes	- handicapped child demonstrates ability to learn content material in regular class setting without disproportionate amount of individual tutoring (an appropriate individualized educational program must be provided).
II Activity Classes, i.e. art, phys. ed., music, drama, etc.	- handicapped child demonstrates ability to follow directions in a regular class grouping and to participate appropriately in a structured activity.
III Social/Recreational Activities, i.e., free play, field trips, house leagues, Hallowe'en parties, etc.	- handicapped child demonstrates ability to function in social settings with regular class students (advantages to handicapped child - language stimulation, peer group models, social behaviour).
IV Special Classes housed in regular schools	- students in regular classes have opportunity to develop awareness and understanding of handicapped children.

DEFINITIONS OF TERMS

Integration. This term encompasses a wide variety of arrangements whereby handicapped children are involved in learning experiences with children in regular classes.

Full Integration. Level I - Cascade Model.

Itinerant Service. Level II Cascade Model. Currently (as at January 1978), there are 8 itinerant teachers (5 - Hearing Handicapped, II Visually Handicapped, 1 - Transition Trainable Mentally Retarded). Itinerant teachers give advice to regular class teachers, assist in monitoring progress of handicapped children, provide special materials and individual tutoring.

Resource Room. Level II - Cascade Model. Students who are spending the majority of their school day in regular class go to the resource room for individual help in specific subject areas.

Partial Integration. Level III - Cascade Model.

Reverse Integration. Students from regular classes go to special class rooms for certain classes.

Team or Parallel Teaching. Regular and Special Class teachers combine their classes and organize learning activities in such a way that the handicapped and regular class students work together.

Reciprocal Teaching. Regular and Special Class teachers "swap" classes or individuals within classes for certain subjects.

EDUCABLY MENTALLY HANDICAPPED CLASSES

Definition. One of the major criteria for defining children in the educable mentally handicapped group is an intelligence quotient, scored on the basis of individual intelligence testing, within the approximate range 55 to 75. Other defining criteria, also of great importance, are indications of significant retardation in educational, personal, and social development. It must not be assumed, however, that such children form a homogeneous group. They will have varied backgrounds, their handicaps will have varied causes, and they will present a wide range of behaviour and learning characteristics. In this they are like "normal" children, and indeed it has been said that they "are more nearly comparable to the non-retarded than they are to the most profoundly retarded."

Although educable mentally handicapped children present a variety of learning and behaviour characteristics, there may be value in listing some of the more common ones here. The educable mentally handicapped child will frequently present all or some of the following characteristics:

1. He may be older than others in his classroom because he has probably repeated grades or entered school at an older age.

2. He may appear to be emotionally maladjusted or to be a behaviour problem. He may compensate for repeated failures by over-aggression or over-submission.

3. He may have an extremely narrow interest range and be limited to the immediate and the concrete. Since the retarded child has limited abilities, he does not handle abstractions and concepts well and since his abilities are taxed by even ordinary assignments, he has not the energy to maintain high interest in several things.

4. He may be less able to generalize than the average student. Since the transfer of learning from one situation to another is a measure of concept formation, which he has in only a limited degree, he cannot be expected, for example, to relate knowledge acquired in history to a situation found in geography.

5. He may be slow in reaction time and have a short attention span and poor concentrative abilities. The retarded child functions intellectually at a level similar to that of children some years younger than himself. His growth in academic skills will be slower. Because he is retarded, he requires more time to acquire knowledge and never matures mentally to the degree of the average child.

6. He will probably have an early history of a slower developmental rate than the average child. Retarded children walk, talk, acquire toilet training and the like at a slower rate generally proportionate to the degree of mental retardation.

7. He may have poor general health. Research indicates a greater incidence of physical retardation, minor defects, and poor coordination among educable mentally handicapped children than among their normal peers. Many mentally retarded children are quite healthy, but there is a small positive correlation between general health and I.Q.

8. Contrary to popular opinion he will probably not have average or above average mechanical or performance abilities. Retarded children frequently have better developed performance abilities than verbal abilities but even so, their performance skills do not usually equal those of the average child.

9. Again, contrary to popular opinion, the slow learners cannot, in most cases, be identified on the basis of his physical appearance. Some retarded children present easily distinguishable physical anomalies but those children are in a small minority.

Educational Needs. The objectives of any program of education must be related to the present and future needs of the children it is designed to serve. The needs of educable mentally handicapped children are no different from those of normal children, although a more intensive effort is required to meet these needs. They may be classified in three groups: a. social needs; b. occupational needs and; c. personal or individual needs.

On the basis of these needs, eight objectives may be stated:

1. Development of social competence (how to get along with your fellow men).

2. Development of occupational competence through a program of vocational counselling and training.

3. Development of emotional security and independence.

4. Development of adequate habits of health and sanitation.

5. Mastery of minimum essentials of tool subjects as far as possible.

6. Development of useful leisure time activities.

7. Development of the ability to become well-adjusted members of a family.

8. Development of useful citizens in the community

Depending on level of intellectual ability and home and school experiences, educable mentally handicapped children, as here defined, are capable of acquiring useful social skills and academic achievement within the range of Grade Two to Grade Six, or occasionally somewhat higher. If given appropriate guidance and opportunities, the greater number of them have potentialities for becoming happy, well-adjusted children and eventually independent and contributing members of society. The importance of recognizing and developing the assets of these children cannot be overstressed.

Current Placements. At the present time, there are 45 special classes for the educably mentally handicapped child spread throughout the public school system. These classes are split into 5 general levels according to age and achievement.

1. The Junior classes are generally children in the 7-9 year old bracket. We have 8 such classes.

2. The Junior-Intermediate classes house children between the ages of 9-11 years of age. We have 13 such classes.

3. The Intermediate classes, of which there are 7, prepare children in the 11-14 year old range to enter the Senior classes for a more vocationally and life-skills based curriculum.

4. Fourteen senior classes house children between the ages of 12-16. From these classes, most children will either enter one of the two junior vocational schools or will progress to one of the senior vocational special classes housed in Shaughnessy or Van Horne schools.

5. Three senior vocational special classes stress life skills, on-the-job experience and travel training. As well, they work intensely with remedial reading and arithmetic.

Types of Integration. At all levels, EMH children are integrated whereever possible, when it appears educationally viable, and when space is available. Although the occasional child is integrated with regular class children for academic subjects, the vast majority integrate into the more non-academic subjects such as Art, Physical Education, Social Studies, Basic Science, Drama, Home Economics, Industrial Arts, Music and Options. The teacher of the EMH children is often integrated as well. The vast majority of EMH personnel teach at least one class period per day to regular class children in exchange for the time spent by the regular teacher with the special class child. Often too, the special educator acts as a resource person to other school staff and some teachers take in regular class children for extra remedial reading and arithmetic.

Adaptation Classes. There are two Adaptation classes in the system - one in the north and one in the south. These classes are geared to the teenager who has had difficulties in school due to his behaviour and general attitude to school. The special teachers work very closely with the regular school staff and the Adaptation class child is very swiftly integrated back into the regular classes as soon as behaviours are under control. All children in these classes have at least average ability and potential for learning.

Willima Roper Hull Home. This school is a segregated institutional school for severely maladjusted young boys and girls. Most students live in residences provided by the institute, although some live at home and attend day programs only. There are 7 classes ranging from primary to grade 12 at William Roper Hull Home. All children are of average to above average ability and are usually integrated back into the regular class in their community schools.

TRAINABLE MENTALLY RETARDED

Definition. Mental retardation refers to significantly subaverage general intellectual functioning (i.e., two standard deviations below the mean) existing concurrently with deficits in adaptive behaviour and manifested during the developmental period.

As such, mental retardation refers to a level of behavioural performance without reference to etiology. Further, the term is descriptive of current behaviour and does not imply prognosis. An individual may meet the criteria of mental retardation at one time in life and not at some other time.[1]

---

[1] From the AAMD Manual on Terminology and Classification, 1973 Edited by H.J. Grossman.

Levels of Mental Retardation

Mild	- "educable" - 2 to 3 standard deviations below mean (IQ 67-52).
Moderate	- "trainable" - 3 to 4 standard deviations below mean (IQ 51-36).
Severe	- "dependent trainable" - 4 to 5 standard deviations below mean (IQ 35-20).
Profound	- "life support group" - 5 or more standard deviations below mean (IQ 19 and below).

Children may move up or down between levels. The level does not necessarily dictate the particular service needed, but may be helpful as one criterion in planning.[1]

Educational Needs. Educational needs for the mentally retarded are essentially the same as for normal children except that for normal children we have some idea about the roles they will play as adults. The retarded, hopefully, will attain some degree of independence in adulthood so the educational process is geared to the fact that each individual's growth is a part of a continuum leading from one stage to the next as with normal people. It is essential that the special class teacher be familiar with the developmental processes in normal children and understand that these stages last longer with the retarded. The extremely difficult and critical aspect of teaching the retarded is assessing the stage reached by each child and then planning an individual and properly sequenced program to meet the child's needs.

The teaching approach emphasizes the social, creative, and emotional aspects of the child's development and academics are structured so that each child reaches maximum intellectual development relative to his handicap. Curriculum and assessment involves the areas of: a. motor development; b. personal routines; c. community awareness; d. social-academic; e. practical skills and; f. personal development.

Current Placements

School	No. of Classes	Age Range	No. of Students
Emily Follensbee Special	7	6 - 15	50
Christine Meikle Special	18	6-- 21	164
Clinton Ford Elementary	2	7 - 14	16
Dr. Oakley Elem. and Junior	2	12 - 15	17
Haddon Road Elementary	1	7 - 13	7
Bridgeland Elementary	2	7 - 12	16

---

[1] From the AAMD Manual on Terminology and Classification, 1973 Edited by H.J. Grossman.

Types of Integration. Integration at Emily Follensbee and Christine Meikle Schools is only at a community level. Work experience and travel training programs provide these integration opportunities.

Classes located in the four elementary and junior high schools listed on the preceeding page are called transitional or extended classes. The first transitional class was opened in September 1972, at Clinton Ford Elementary. These classes were established to meet the needs of some children at the schools for the retarded who were relatively high in social and self-help skills, exhibited relatively high potential for intellectual and language development, and required greater stimulation in an environment with better behaviour models.

Types of Integration are: Levels I, II, III, and IV including reverse integration, team, and reciprocal teaching.

LEARNING AND BEHAVIOUR

Definition. "A child with learning disability is any child who demonstrates a significant discrepancy in acquiring the academic and social skills in accordance with his assessed capacity to obtain these skills. In general, these discrepancies are associated with specific disabilities such as: gross motor, visual memory, visual discrimination, and other language-related disabilities."[1]

Educational Needs. An educational program for children with learning and behaviour problems should be a highly individualized one, diagnostic in nature, and it should involve a variety of procedures including behaviour modification and task analysis. Instruction should focus on reading, mathematics, and specific areas such as: a. gross motor development; b. sensory-motor integration; c. perceptual motor skills; d. language development; e. conceptual skills and; f. social skills.

Current Placements

School	No. of Classes	Age Range	No. of Students
Dr. Carl Safran	10	6 - 13	80
Connaught Elementary	1	8 - 12	10
Dr. Norman Bethune Elem.	3	8 - 13	24
Kensington Road Elem.	1	8 - 13	8
Knob Hill Elementary	1	8 - 10	8
University Elem.	1	10 - 12	10
Margaret House	1	7 - 13	16

---

[1] Journal of Learning Disabilities, 6, 10, December 1973

Types of Integration. Level I, II, and III of model including reverse integration, team, and reciprocal teaching.

Margaret House is a segregated setting which provides a program for autistic children. This program is run in cooperation with Social Services. Levels II and III integration are possible with individual children.

Autism is defined as a severely incapacitating lifelong developmental disability which typically appears during the first three years of life. It occurs in approximately five out of 10,000 births and is four times more common in boys than girls. It has been found throughout the world in families of all racial, ethnic, and social backgrounds. No known factors in the psychological environment of a child have been shown to cause autism.

The symptoms are caused by physical disorders of the brain. They must be documented by history or present on examination. They include:

1. Disturbances in the rate of appearance of physical, social, and language skills.

2. Abnormal responses to sensations. Any one or a combination of sight, hearing, touch, pain, balance, smell, taste, and the way a child holds his body, are affected.

3. Speech and language are absent or delayed while specific thinking capabilities may be present. Immature rhythms of speech, limited understanding of ideas, and the use of words without attaching the usual meaning to them, are common.

4. Abnormal ways of relating to people, objects, and events. Typically, they do not respond appropriately to adults and other children. Objects and toys are not used as normally intended.[1]

Hearing Handicapped.

1. The deaf: Those in whom the sense of hearing is nonfunctional for the ordinary purposes of life. This general group is made up of two distinct classes based entirely on the time the loss of hearing occurred. These include: a. the congenitally deaf -- those who were born deaf; and b. the adventitiously deaf -- those who were born with normal hearing but in whom the sense of hearing became nonfunctional later through illness or accident.

---

[1] National Society for Autistic Children, 1977.

2. The hard of hearing: Those in whom the sense of hearing, although defective, is functional with or without a hearing aid.

Major Etiologies of Hearing Loss

Etiology	Definite Diagnosis	Suspected Diagnosis
Heredity	5.4[1]	26.0[2]
RH factor	3.1	3.7
Prematurity	11.9	17.4
Meningitis	8.1	8.7
Rubella	8.8	9.5
Other	32.3	---
Unknown	30.4	---

Source: M. Vernon, Current Etiological Factors in Deafness, American Annals of the Deaf 113 (March, 1968). Reproduced with the permission of the author.

Note: Recent medical research indicates that the actual prevalence of rubella in epidemic years is at least four times the rate reported in this table. The latest genetic data indicates approximately 50 per cent of childhood deafness is genetic. This information is drawn from E.D. Mindel and M. Vernon, They Grow In Silence, Silver Spring, Maryland: National Association of the Deaf, 1971.

---

[1] Both parents

[2] Any family member

2-27

Educational Needs of Hearing Handicapped Children

Average of the speech frequencies in better ear	Effect of hearing loss on the understanding of language and speech	Educational needs and programs
SLIGHT 27 to 40 dB (ISO)	May have difficulty hearing faint or distant speech. May experience some difficulty with the language arts subjects.	Child should be reported to school principal. May benefit from a hearing aid as loss approaches 40 dB (ISO). May need attention to vocabulary development. Needs favourable seating and lighting. May need lipreading instructions. May need speech therapy.
MILD 41 to 55 dB (ISO)	Understands conversational speech at a distance of 3-5 feet (face to face). May miss as much as 50% of class discussions if voices are faint or not in line of vision. May exhibit limited vocabulary and speech anomalies.	Child should be referred to special education for educational follow-up. Individual hearing aid by evaluation and training in its use. Favourable seating and possible special class placement, especially for primary children. Attention to vocabulary and reading. Lipreading instruction. Speech conservation and correction if indicated.
MARKED 56 to 70 dB (ISO)	Conversation must be loud to be understood. Will have increased difficulty in group discussions. Is likely to have defective speech. Is likely to be deficient in language usage and comprehension. Will have limited vocabulary.	Child should be referred to special education for educational follow-up. Resource teacher or special class. Special help in language skills; vocabulary development usage, reading, writing, grammar, etc. Individual hearing aid by evaluation and auditory training. Lipreading instruction. Speech conservation and correction. Attention to auditory and visual situations at all times.

Average of the speech frequencies in better ear	Effect of hearing loss on the understanding of language and speech	Educational needs and programs
SEVERE 71 to 90 dB (ISO)	May hear loud voices about one foot from the ear. May be able to identify environmental sounds. May be able to discriminate vowels but not all consonants. Speech and language defective and likely to deteriorate.	Child should be referred to special education for educational follow-up. Full-time special program for deaf children, with emphasis on all language skills, concept development, lipreading and speech. Program needs specialized supervision and comprehensive supporting services. Individual hearing aid by evaluation. Auditory training with individual and group aids. Part-time in regular classes only as profitable.
EXTREME 91 dB or more (ISO)	May hear some loud sounds but is aware of vibrations more than tonal pattern. Relies on vision rather than hearing as primary avenue for communication. Speech and language defective and likely to deteriorate.	Child should be referred to special education for educational follow-up. Full-time in special program for deaf children, with emphasis on all language skills, concept development, lipreading and speech. Program needs specialized supervision and comprehensive supporting services. Continuous appraisal of needs in regard to oral and manual communication. Auditory training with group and individual aids. Part-time in regular classes only for carefully selected children.

SERVICES FOR THE HEARING HANDICAPPED (JANUARY, 1978)

There is an audiologist located at Queen Elizabeth Elementary School with fully equipped testing facility. Children are admitted to special ECS programme at age 2 1/2. Two programmes are available to provide the parents a choice of oral education or instruction using sign language along with speech reading, auditory training, etc. (The latter system is called Total Communication).

Stanley Jones Elementary (Oral Programme)

ECS - 9 children.

3 elementary classes - 20 children.

All elementary children integrate for physical education, art, and social activities and many are integrated for academic subjects.

Queen Elizabeth Elementary (Total Communication Programme)

ECS - 10 children.

3 elementary classes - 18 children.

Integration is on a group basis for physical education, art and social activities.

Queen Elizabeth Junior High

2 classes - 10 students.

Students integrate for physical education, art, home economics and industrial arts. There are 5 itinerant teachers of the Hearing Handicapped serving approximately 30 students.

SERVICES FOR THE PHYSICALLY HANDICAPPED (JANUARY, 1978)

Orthopedic, severe health problems. Educational needs are adaptation of the environment, i.e. ramps for wheel chairs, etc. Provision of physio therapy, occupational therapy, speech therapy in cooperation with staff from Alberta Children's Hospital.

The enrollment at Alberta Children's Hospital School varies, but it is usually around 65. Integrated physically handicapped children are served by Mobile Teams of occupational therapists, physio therapists and speech therapists.

Many students with moderate physical handicaps function very well in the schools without any special help. Their only needs are individual counselling from time-to-time when the stresses of being "different" compound the normal stresses of growing up and preparing for a career.

Visually Handicapped. Blindness is generally defined as visual acuity for distance vision of 20/200[1] or less in the better eye, with best correction; or visual acuity of more than 20/200 if the widest diameter of field of vision subtends an angle no greater than 20 degrees.

The partially seeing are defined as persons with a visual acuity greater than 20/200 but not greater than 20/70 in the better eye with correction.

Common Eye Disorders among Children: Children with Refractive Errors.

Myopia (short-sightedness)

- child has to wear thick glasses, but can read with book close to eyes, reads slowly; should be encouraged to develop other interests than books; normally cannot see board work.

Hyperopia (far-sightedness)

- can see things at a distance but has difficulty to read; finds difficulty in accommodating; restless and short attention span; short periods of close work and frequent rests; should be seated where he/she can see the blackboard.

Cataracts (congenital in children)

- lenses usually removed and replaced with heavy glasses; ability to focus impaired; to be seated in good light but no glare; can benefit by easel or desk with a movable top for reading and writing.

Common Eye Disorders among Children: Congenital or Acquired

Optic Atrophy

- complete or partial loss of function of optic nerve
- has tubular vision (tunnel vision) with disability to see objects as a whole or has poor central vision with difficulty to see details.

- child requires extra time for written work as he often loses place
- some are happy to use small print because of small field of vision.

Retrolental Fibroplasia

- premature babies whose vision has been damaged by over-dosage of oxygen in incubator
- partial or complete loss of vision due to lack of development of the eye

Glaucoma (and congenital glaucoma)

- hardening of eyeball, due to faulty drainage causing increased tension.
- congenital glaucoma present from birth or infancy, requires constant supervision by an ophthalmologist
- vision gradually decreases
- useful vision often retained until teenage due to peripheral vision loss.

Albinism

- child lacks pigment, hair almost white
- eyes extremely sensitive to light
- to be seated away from light

Strabismus (or crossed eyes or squint)

- failure of the two eyes simultaneously to direct their gaze at the same object because of muscle imbalance.

Nystagmus

- an involuntary, rapid movement of the eyeball; it may be lateral, vertical, rotary or mixed.

Retinal blastoma

- a cancerous tumor behind the eyes, the tumor and the eyes have to be removed. The disease is inherited (90% chance) and can be identified before the age of five years.

One-eyed child

- will have problems associated with the lack of binocular vision. He will judge distances inaccurately because of his lack of ability to perceive depth, the primary function of binocular vision.

Amblyopia

- dimness of vision without any apparent disease of the eye.

Suppression

- the condition resulting from double vision, when one of the two images is ignored by the brain; central vision decreases through nonuse of the eye, and the eye may turn it; amblyopia is usually diagnosed.

Tunnel vision

- contraction of the visual field to such an extent that only a small area of central visual acuity remains, thus giving the affected individual the impression of looking through a tunnel.

The major educational need of Visually Handicapped students is specialized materials. Written materials have to be either Brailled or available in large print, various types of machines for magnification are supplied along with other items such as thermometers with Braille markings, raised line maps, etc.

Services for the Visually Handicapped (January 1978)

3 full-time special classes

2 itinerant teachers

Brentwood Elementary. Nine children (age range 6-11) who are all Braille users are in two classes, but are integrated on an individual basis for increasing amounts of time as they move from grade 1 to grade 5. The aim is to have all children integrated in their community schools by the end of the elementary years.

Elboya. Seven children (age range 6-8) who are partially sighted. Integration arrangements are similar to Brentwood, but the aim is to integrate these children by the beginning of Division II.

Itinerant Service. Approximately 40 students are served by two teachers. These students are in elementary, junior or senior high schools throughout the system or in special settings because of other educational problems.

(Statistical Data)

APPENDIX B

Student Services Enrollment
Department of Special Education
Calgary Board of Education
May 1978

2-34

Calgary Board of Education - Student Services Enrollment

	Enrollment	Number of Classes	Total Number of Staff
EDUCABLE MENTALLY HANDICAPPED CLASSES			
Junior	98	8	8
Junior-Intermediate	130	12	12
Intermediate	74	7	7
Senior Girls	150	2	2
Senior Boys		1	1
Senior Co-Ed		11	11
Vocational Special Shaughnessy	17	1	1
Vocational Special Van Horne	25	2	2
TOTALS	474	44	44
SENSORY HANDICAPPED			
Hearing - Oral	25	3	3
- Total Comm.	28	5	5
Hearing Handicapped Integrating Students			
Elementary	19		2
Junior	11		1
Senior	6		1 5/10
Vision Integrating Students			
Elementary	17		
Junior	1		
Senior	18		2
Brentwood Blind	8	2	2
Elboya - Low Vision	6	1	1
TOTALS	139	11	17 5/10

	Enrollment	Number of Classes	Total Number of Staff
HOSPITAL, INSTITUTIONAL, HOMEBOUND			
Alberta Children's Hospital	85	11	12
Wood's Christian Home	16	2	2
William Roper Hull Home	72	8	8
Detention Home	40	3	4
Home Confined	15	2	2
TOTALS	228	26	28
LEARNING DISABILITIES			
Connaught School	10	1	1
Dr. Carl Safran School	78	10	11
Kensington Road "E"	8	1	1
Knob Hill "O"	8	1	1
University Elementary	7	1	1
Dr. Norman Bethune	22	3	3
Adaptation	12	2	2
Margaret House	11	1	1
TOTALS	156	20	21
TRAINABLE MENTALLY HANDICAPPED			
Christine Meikle School	172	18	22
Emily Follensbee School	47	8	9
TMR (Clinton Ford)	12	2	2
TMR (Bridgeland)	17	2	2
TMR (Dr. Oakley)	17	2	2
TMR (Haddon Road)	8	1	1
TOTALS	273	33	38

	Enrollment	Number of Classes	Total Number of Staff
EARLY CHILDHOOD SERVICES			
Hearing Handicapped			
- Oral, Stanley Jones	1	2 1/2	2 1/2
- Total, Queen Elizabeth	1 1/2		

Report #3: KNOWLEDGEABLE RESIDENTS

A Report of Interviews with Calgary Residents Knowledgeable About the Topic of Integration

Concerning: Definitions of Integration
Extent of Integration in Calgary
Resources Required to Support Integration

What are the opinions of educators and representatives of the community about the integration of handicapped children in the regular schools of the Calgary Board of Education?

TABLE OF CONTENTS

Page

Introduction 3-2

Methods 3-2

Rationale for Interviewing Knowledgeable and Concerned Individuals 3-2

Objectives of the Interviews 3-2

Data Sources 3-3

Content of the Interview Schedule 3-3

Pilot Testing 3-3

The Sample 3-4

Data Analysis 3-4

Presentation of the Findings 3-4

Question #1: What Does the Term Handicapped Student Mean to You? 3-4

Question #2: What Does the Phrase "Integration of Handicapped Students" Mean to You? 3-5

Question #3: How Does Integration Operate in the Calgary School System? 3-7

Question #4: What Do You See as the Major Advantages and Disadvantages of Integration? 3-9

Question #5: What Are Your Concerns About Integrating Handicapped Students Into Regular Classrooms? 3-13

Question #6: What Can Be Done to Alleviate Your Concerns, i.e. What Kinds of Questions Do You Feel Need To Be Answered Before the Calgary Board of Education Proceeds Further With Its Integration Efforts? 3-16

Concluding Comment 3-19

Report #3: Knowledgeable Residents

What are the opinions of educators and representatives of the community about the integration of handicapped children in the regular schools of the Calgary Board of Education?

INTRODUCTION

A necessary task undertaken in the early months of research investigation was clarification of the nature of the problems under investigation. This report provides a summary of the perceptions of experts and concerned individuals about the current status of integration in schools operated by the Calgary Board of Education and about the problems which they see as being relevant to further steps in the integration process. The data were collected using a semi-structured interview schedule administered to selected members of the Board of Education, area office Superintendents, senior staff in the Central Office, staff in the Department of Student Services, school teachers and principals, and individuals selected from the community at large.

METHODS

Rationale for Interviewing Knowledgeable and Concerned Individuals. It was our intention to collect and report information relevant to present concerns about integration in Calgary schools. Through discussions with individuals who have been closely associated with the education of handicapped children, it was hoped to gain important insights that would improve the quality of the work done and would increase the possibility of producing timely and useful information for the Calgary Board of Education.

Objectives of the Interviews. The following four objectives were established for the first study task:

1. To determine how the term "handicapped student" is understood by Board members, central office administrators, the

staff of the Department of Student Services, area office administrators, school principals and teachers and representatives of the community at large.

2. To determine how the phrase "integration of handicapped students into the regular classes of the Calgary Board of Education" is understood by the above-named interviewees.

3. To determine the major concerns these interviewees have relevant to the problem of integrating handicapped students into the regular classes of the Calgary Board of Education.

4. To elicit recommendations about the type of decisions that need to be made to alleviate the expressed concerns.

Data Sources. The findings presented here are based on interview data collected using a semi-structured schedule. A total of 26 people were interviewed including 2 trustees, 1 area office superintendent, 3 senior staff members in the Central Office, 4 members of the staff of Student Services, 4 school administrators, 6 teachers and 6 parents.

Content of the Interview Schedule. A semi-structured interview schedule was prepared to accomplish the objectives of this component of the Study. This approach made it possible for the interviewer to interact with the interviewee pursuing leads that appeared fruitful and asking for elaboration where points were unclear. The process proved useful in generating a large amount of data on several variables of concern in the study.

The interview schedule contained 6 general questions:

1. What does the term "handicapped student" mean to you?

2. What does the phrase "integration of handicapped students" mean to you?

3. How does integration operate in the Calgary school system?

4. What do you see as the major advantages and disadvantages of integration?

5. What are your major concerns about integrating handicapped students into regular classrooms?

6. What might be done to help alleviate your concerns, i.e. what kinds of questions do you feel need to be answered before the Calgary Board of Education proceeds further with its integration efforts?

Pilot Testing. An initial draft of the questionnaire was prepared and presented to the Steering Committee for reaction. Some concerns were expressed about certain questions in the first draft, especially those relating to the proposed use of the critical incident technique. In view of the concerns, it was agreed that modifications would be made on the basis of pilot test data. Following the pilot test, revisions were made and the questionnaire was approved for field implementation.

The Sample. A non-random sample was drawn from a list of representatives of the Board of Education, its employees and the community at large. Criteria for selecting interviewees were drafted and established in collaboration with the Steering Committee. Deliberate selection was used for this study task to ensure that the people consulted had knowledge about integration based on first-hand experience.

Data Analysis. Answers to questions posed during the interviews were studied. Responses were coded and sorted into groups, and the general tenor of the information was summarized. To clarify or amplify the summary statements, a few typical quotations have been selected and printed in italics below each summary. The quotations chosen generally reflect the types of answers provided by the majority of individuals.

PRESENTATION OF THE FINDINGS

The primary purpose of the set of interviews was to define fundamental terms and to explore issues and concerns that would clarify subsequent steps in the study. The reader is cautioned that the presentation of these exploratory findings is somewhat incomplete and is replete with unresolved questions and debatable points. Nevertheless, the report does convey accurately the opinions expressed by the people interviewed. The Research Team used these opinions to assist them in planning later stages of the Study. No attempt was made to deduce conclusions from these findings.

Question #1 - What does the term handicapped student mean to you?

Most interviewees characterized a handicapped student as one who deviates from the average or normal child in a mental, physical or social way to the extent that he/she requires a modification in regular school practices. A few respondents defined a handicapped student as any student who is having difficulty learning. Most would find this definition too broad, and most prefer a definition which specifies handicap based on physical, mental, and/or social-emotional impairment. Two further issues were specifically mentioned by some interviewees: the visibility and permanence of the handicapping condition.

The majority of interviewees included the need for provision of special services as an integral part of their definition of handicapped student.

> *A student who deviates from the average or normal child in a mental, physical or social way to the extent that he or she requires a modification in regular school practices, i.e. special education services, in order to develop to his or her maximum capacity.*
>
> *A handicapped student is any child needing special help to cope in a regular class. They need a small group setting in order to achieve. This would include children with any type of handicap from a low I.Q. to any physical impairments as well as disadvantaged children.*
>
> *A handicapped student is a student needing special programming considerations to get the most out of the school program. Special considerations include: individual attention, small pupil/teacher ratio, diagnosis and prescription and alterations to school facilities.*
>
> *A handicapped student is any student who has a disability that seriously interferes with normal school progress. Such disabilities can stem from physical, sensory, emotional and other problems.*
>
> *Any student who has difficulty with the regular curriculum due to physical or mental problems is a handicapped child.*
>
> *A handicapped student is one who has learning problems that stem from very visible and incapacitating handicaps. There are varying degrees of visibility and varying degrees of incapacity.*
>
> *A handicapped student is any child who does not fit in with what we generally think of as the normal range of learning capacity. He may have specific problems such as hearing, sight, mental disability or physical disability; however, there may also be a general problem which affects his emotional stability such as a poor home background.*
>
> *Any student needing extra kinds of services due to some kind of impairment, whether temporary or permanent.*

Question #2 - What does the phrase "integration of handicapped students" mean to you?

Integration was generally perceived as a process whereby the handicapped child is educated in a regular or modified classroom setting. Within this broad definition, different interviewees offered different qualifying statements.

Some respondents viewed integration simply as a placement into the regular classroom, whereas others mentioned a more complex, differentiated approach based on the needs of the individual child. Concern was expressed that neither integration nor segregation should be forwarded as blanket policies for all children. The needs and capacities of any particular child, together with the availability of special services, need to be taken into account when recommending the type of integration for the child. Many interviewees mentioned the social benefits of integrated systems which model the "real" society into which the handicapped student will eventually move.

> *Integration means to include handicapped students into a normal or regular class. The reverse of this would be to diagnose learning problems and isolate them in a different learning environment.*
>
> *Integration denotes a trend towards educating the handicapped student with his normal peers to whatever extent is compatible with his optimum level of development.*
>
> *Integration refers to the practice of placing children with handicaps in small groups by themselves in regular schools and them removing them from special classes and placing them in regular classes for certain subjects and for certain portions of the day. Complete or full integration is not very probable.*
>
> *Integration means having the student flow through various levels of educational programs in the same setting as the vast majority of our other students.*
>
> *The idea of segregating handicapped children is to give them some kind of special help that cannot be provided in a regular setting. Integration to me means housing handicapped students in regular schools but not necessarily in regular programs. Being housed in regular schools allows participation in parts of the school program that are compatible with individual needs, and yet also allows for support services in areas where regular programs would not be adequate.*
>
> *Integration of handicapped students means allowing the handicapped child to take advantage of all the benefits of a general education including emotional, social and academic areas. They deserve all that we can give them which is appropriate to their learning skills. The segregated setting cannot provide all of these.*

Question #3 - How does integration operate in the Calgary school system?

Responses to this question have been grouped to provide a complete description of integration in the Calgary school system. Some interviewees provided comments on the quality of integration attempts. These comments will be discussed under Question #5. Here we review only interviewee responses concerning the nature and extent of those integration attempts.

Answers to the question posed indicate that the process of integration operates in a flexible manner in order to provide the best possible placement on an individual basis. In the Calgary school system segregation and integration are not discrete alternatives. Varying degrees of segregation and integration are instituted while a child progresses through the system. A child's progress is evaluated at various stages of his/her program and decisions are made regarding the type of placement which can best meet the child's needs at that time. Basically, the Calgary Board of Education is attempting to supply support services to handicapped children within a regular school setting. Segregation is used as a program only when it is impossible to meet the needs of these children in regular schools. The milder the handicap the more viable an integrated program becomes.

The majority of integration programs in Calgary operate on a partial basis, with the primary purpose being interaction with normal peers for social rather than academic activities. Interaction is encouraged in many settings through integrating such activities as house-league programs, special projects and field trips, music, art and physical education. The aim is to educate handicapped children with regular class children in a setting where abilities between the two are least likely to be discrepant. In this way the handicapped child is provided with an opportunity to succeed. If placed in an academic situation where he/she is unable to cope with the level of regular class instruction, the child experiences continual failure and the associated lowering of his/her self-concept.

The Calgary Board of Education operates six basic models for the integration of handicapped children: itinerant service, a resource room, partial integration, parallel teaching, transitional classes and mobile team support.

The itinerant service, which is provided for hearing and visually impaired children, offers support for these children through a teaching specialist who visits the school on a regular basis.

The resource room provides support service to hearing and visually impaired children in the form of a special class to which the handicapped child is assigned on a regular basis for additional instruction from a special education teacher.

Partial integration is a model which operates to supply support services for the visually and hearing impaired as well as a number of other handicapped children. It differs from itinerant service and the resource room in that these handicapped children are registered in a special school or special class and, according to individual need, dispersed to various part-time regular classes. The ultimate goal is to return the child to his/her home district school when he/she has demonstrated an ability to function adequately in an integrated setting.

Parallel teaching, which is offered to the hearing impaired, allows the specialist and regular teacher to work closely together in a team approach. Joint instruction is provided when necessary in an integrated class, with the specialist acting as an interpreter.

The transitional model, established for the trainable mentally handicapped, is a form of partial integration. These children are initially placed in a special class in a regular school setting. A needs assessment is conducted over a period of time. When a child's needs have been clearly identified, the child may be integrated for some school programs and segregated for others. The extent of integration depends upon individual unique needs and capabilities.

An additional model operates in the Calgary school system whereby special services are provided by a mobile team of specialists from the Alberta Children's Hospital for children with physical disabilities.

These models are flexible and may be operating in various forms or combinations throughout the system depending on the needs of particular handicapped children, on the availability of willing teachers and principals and on available facilities. Decisions for transferring children to integrated classes within a regular school have in the past been left to the discretion of the teachers involved. A new policy for hearing and visually impaired children has now been instituted whereby recommendations are made to the Student Services Department by the special education teacher. This department then makes recommendations to the principal concerned who discusses a transfer with the parents and teachers before the child is integrated.

> *What you do really depends on the severity of the problem. Basically, the Calgary Board of Education tries to help handicapped children in regular classes so that segregation is not necessary.*
>
> *We feel that the success of integration in this school system is largely dependent on the principal of the receiving schools.*

> *Integration may operate for all of the day or part of the day. You must look carefully into a student's ability to cope with the situation.*
>
> *Whether you integrate or segregate you should try to bring out the best in children, and educate them to the optimum level of their capacity. The goal is to meet the needs of the individual child.*
>
> *The term special education is never used and handicapped children are treated and perceived as members of the regular class.*
>
> *The concern is for social adjustment and integration with regular children initially and then academic integration. If the handicapped child is not socially adjusted then he will not want to learn.*
>
> *Each integrated school operates according to its own principles and beliefs on integration. Although the principal's influence on integration in his school is considerable, he has no decision power regarding the selection of staff. Special class teachers are selected for their ability to deal with handicapped children, but regular teachers are not.*
>
> *Question #4 - What do you see as the major advantages and disadvantages of integration?*

The following is a summary of the advantages and disadvantages of integration expressed by the individuals interviewed. The Research Team did not attempt to draw conclusions about the desirability of integration from this limited amount of information.

Advantages of Integration. Advantages of integration were specified by interviewees for both handicapped and non-handicapped persons. It was generally implied that an integrated program more closely approximates the structure of society at large and as such provides a more realistic learning environment. The misunderstanding and stigmatization associated with the concept of segregation, where the handicapped child is labelled as different, is eliminated and replaced by acceptance and respect for mutual differences. The non-handicapped child learns to understand and become more compassionate toward difficulties the handicapped person experiences. He/she also learns to appreciate the qualities and skills the handicapped person possesses.

Although there are financial and administrative difficulties in implementing an integrated program interviewees suggested that the advantages for the handicapped person far outweigh any disadvantages. The self-respect that a handicapped child learns and the enhancement in self-worth are important advantages that illustrate this point. Acceptance in a regular educational setting allows the handicapped person to realize that he/she is entitled to live a "normal" life. His/her general self-concept improves, especially if he/she is placed in a setting where he/she is capable of experiencing success.

In the opinions of the people interviewed, integration also provides advantages for the parents of disabled children. Their own self-worth and pride in their child is improved and feelings of guilt are allayed as the stigmatizing effects of segregation are removed. They begin to realize their child's potential and are encouraged to be less protective. Such a change in parental attitudes has beneficial effects for the handicapped child.

It was also generally felt than an integrated setting provides the handicapped child with more appropriate behaviour and speech models. This allows for improvement in social behaviours and provided better opportunities for socialization. Socialization involves learning the expectations of school and community and adapting one's self to meet these standards in order to function successfully in society. Integration allows the handicapped person to attain a perspective of his/her abilities and limitations which helps him/her, if managed correctly, to recognize and develop his/her strengths. In a sheltered environment potential is often not realized. Integration prepares the handicapped person for eventual independence in community living and for meaningful employment.

> *Integration teaches respect. Early exposure to the unique problems of the handicapped will engender respect for mutual differences.*
>
> *The climate of an integrated setting is such that it provides challenge and stimulation. It will increase self-concept and a desire to learn.*
>
> *An integrated class more closely approximates society and prepares the handicapped child for eventual community living.*
>
> *The handicapped child experiences and enhances feelings of self-worth.*
>
> *Eventually the handicapped child has to take part in community life. Through integration he learns to be more independent and to compete with regular children.*
>
> *Integration is also a learning experience for the non-handicapped child in coping with problem situations. They are able to see life as it really is.*

> *An advantage of integration is the general awareness and appreciation amongst the student population for the unique problems of the handicapped.*
>
> *An administrative advantage to integration is the elimination of bussing costs and scheduling problems if the child is integrated in his home district school. Such a placement would also create more neighborhood friendships for the disabled child.*

Disadvantages. The disadvantages stated by interviewers reflect mainly financial and administrative problems and a few social concerns.

The major administrative disadvantages specified by interviewees were high pupil-teacher ratio and lack of special qualifications on the part of the regular class teachers. The placement of handicapped children in a regular classroom increases the class load per teacher. As the variance among the individual needs of children increases, the flexibility of instruction is reduced relative to the number of students, and the teacher is less able to meet the needs of all children. As classroom pressure increases teacher preparation time is also reduced, relative to classroom demands, and little time is available for consultation with teaching specialists. A related disadvantage is a reduction in instructional time for regular school children as the needs of the handicapped child require extra attention. Some interviewees believe additional staffing by qualified personnel is needed in order to overcome this problem.

In the opinion of those interviewed, present staff are not equipped to cope with the learning needs of special education children. Special training is needed through the implementation of in-service programs or changes in course requirements at the university level. Special facilities and equipment are also required to aid the teacher in meeting the needs of handicapped children. In a regular school there may be a lack of opportunity to remediate learning disabilities. Special schools consolidate learning specialists and equipment. With the dispersion of handicapped children to regular schools, the availability of such support is, some feel, less than adequate.

The need for support services for regular schools is related to another disadvantage of integration. Additional financial assistance is required in order to provide training programs, support personnel and specialized facilities and equipment at each integrated school. Increased cost is also reflected in the possible restructuring of schools to accommodate the disabled, physically handicapped children.

Social disadvantages to integration mentioned by the interviewees were related to rejection of the handicapped child and potential negative effects on self-concept. If regular children are not properly introduced to integration, the differences of the handicapped children may not be accepted. This may have profound effects on the handicapped child's self-esteem. Another factor having potential negative effects on self-esteem is academic competition. If a handicapped child is placed in an academic situation with which he/she is unable to cope, he/she experiences frustration and failure which contribute to lack of self-confidence and a poor self-image.

> *I feel there would be a backlash from parents of non-handicapped children on account of the inordinate amount of time that teachers would spend with handicapped children in regular classes.*
>
> *There may be a tendency to drag the academic level of the whole class down when attempts are made to gear programs to the slower students.*
>
> *A typical social behavior on the part of the handicapped child usually provokes strong community reaction.*
>
> *It is sometimes difficult to accommodate the needs of the special child. His/her background is not always adequate and extra time must be spent with him. As a result more independence is expected from the other children. Regular teachers are not trained to handle special problems and in-service is not available.*
>
> *It is difficult to meet the needs of all children. With the addition of handicapped children in a class, a greater variation in need is created. As class load increases preparation time is limited and there is less time to spend with each child.*
>
> *There are no disadvantages for integrated children. There are only administration difficulties because of the non-recognition of the unique status of an integrated school.*
>
> *Often in an integrated setting the handicapped and especially the severely handicapped, tend to be the recipients of negative actions. However, given a compassionate and concerned staff as well as administration, this problem can be overcome.*
>
> *The mentally handicapped children might be socially rejected by the normal children.*

> *Facilities and staffing at a regular school may not be adequate. Special schools consolidate specialists and if specialists are spread out, children would lose the concentration of the special services. Also, regular schools may not be constructed to accommodate the physically handicapped child.*

Question #5 - What are your major concerns about integrating handicapped students into regular classrooms?

Concerns specified by the interviewees covered a wide range of areas such as aims and operation, budgeting, selection of personnel and teacher training programs, curriculum, pupil-teacher ratio, communication among personnel, social impact on handicapped students, and political pressure. In general, these concerns reflect an interest in providing all children with the best possible education. Several interviewees stated forcefully that the first step in accomplishing this aim is to establish a philosophy and direction for integration. Once members of the school system and community are made aware of the goals and operation of the integration program, they can then direct their effort towards a common goal. Lack of definition of present policy and status of integrated schools creates difficulty in developing a feeling of professionalism among teachers and other school staff. Eleven major concerns were identified. They include:

1. Allocation, control and extent of financial grants to integrated schools.

> *Handicapped students require special equipment, services and support personnel which create additional strain on the budget. At present I understand that operating grants are based on the number of pupils in a classroom. Support of the integration program would seem to imply a need for change in grant regulations to take into account the type and degree of handicap.*
>
> *Budget control should be decentralized and given to each school so that integrated schools would not be inhibited in the development of programs.*

2. Compensation for shrinking budgets by reducing special education services and by educating all but the most severely handicapped in regular schools.

> *School budgets are shrinking. In efforts to save money, school boards might abolish special education services and attempt to educate all but the most severely handicapped in the regular class setting.*

3. Selection, training and kind of personnel support for integrated schools.

Selection of teachers and principals on the basis of special skills and philosophy may be necessary for the success of an integrated program.

Regular staff will need special in-service training.

Most regular teachers lack the qualifications necessary to meet the special needs of the disabled. Teacher would require possible salary increases, additional teacher aides, or increased professional development time to compensate them for the heavy workload.

It may be desirable for the principal of an integrated school to have the authority to influence the selection of teachers for his/her school. Conversely, teachers should have the right to either accept or refuse, without penalty, a position that includes teaching of handicapped children.

4. Selection and preparation of schools suitable for integrated programs.

Care must be taken to prepare schools to receive handicapped children. This requires special in-service training for staff, selection and purchase of necessary equipment and materials and modifications to school buildings.

Schools chosen for integration tend to be small, lack full-time secretarial staff, and tend to be inner-city schools which are already burdened with the problems of low socio-economic surroundings.

An integrated school must have adequate secretarial support.

5. Adjustments to pupil-teacher ratios and release time for preparation.

Handicapped students often require individualized attention in the classroom, and individualized programming of lesson materials. The extra time required by the handicapped child may be added to a teacher workload which is already heavy.

Unless the pupil-teacher ratio is low, the non-handicapped children in the integrated classroom *will be deprived of teacher time. It may be that the most intelligent children will suffer the most, since the teacher will tend to leave them to work on their own.*

6. Parental negative attitudes toward integration.

A problem that I see with integration is that my child might be deprived of the teacher's time and attention, especially if severely handicapped children are allowed into the schools.

7. Communication and coordination among special personnel, regular teachers and parents.

Regular teachers may lack time for consultation with training specialists and parents.

Special Education teachers might make inappropriate referrals to the regular classroom because of lack of familiarity with the procedures and requirements of regular classrooms.

Parents would need to be informed about integration plans.

8. Establishment of selection and placement criteria for the individual placement of handicapped children in alternate integrated settings.

Interaction among all concerned persons such as the parent, child, visiting teacher, psychologist, health nurse, social worker, probation officer, etc. may be necessary in order for placement decisions to be made properly.

Age or grade placement also presents a problem in selection decisions. Should children be placed according to their age group, and yet not be able to meet the academic level of that group, or according to their grade level, in which case they are older than their peers and may suffer social repercussions?

Global decisions about groups of children could be harmful to some individuals. Each child must be considered as an individual. Care must be taken to prevent indiscriminate assignment of children to either special or integrated classes.

9. Suitability of the curriculum offered in regular classes.

The curriculum in regular schools may be unsuited to the needs of handicapped children. Present courses of study seem poorly defined and are often left to the discretion of an individual teacher.

10. Social problems of integrating handicapped children.

Teasing and taunts may come from those students who are not directly involved with the handicapped student, and this type of behavior may be hard to control.

11. Fear that political pressure could force the implementation of an inadequately planned integrated system.

Global policies which are not capable of providing desired flexibility may be put into effect too quickly. The long-run success of integration programs may be jeopardized.

Question #6 - What can be done to alleviate your concerns, i.e. what kinds of questions do you feel need to be answered before the Calgary Board of Education proceeds further with its integration efforts?

The individuals interviewed posed a number of questions, which, in their opinion, must be addressed if the Calgary Board of Education decides to proceed further with integration in its schools. Questions were sorted into ten categories and are presented verbatim without comment.

1. Aims and Operation

What should the long term goals and objectives for integration be?

If integration is extended, to what degree should it be extended?

Is the Department of Student Services prepared to specify a philosophy and direction for integrating handicapped children and to clarify the role and responsibilities of consultants?

Can we prove integration is the best way of educating handicapped children? Will they receive an equal or better education than is presently available in segregated settings?

Can "special" facilities become available to the borderline slow learner?

Can teachers and principals take part in the planning of integration procedures?

What has happened in other places where full integration has been attempted?

2. Budgeting and Cost

Will the present grant structure be adjusted to accommodate an integrated program? Will budget control be decentralized?

How are special education funds to be dispersed? What guidelines will be provided to ensure that special materials for the handicapped will be used only by them and not be lost in the system?

Do the benefits of integration justify the cost? If no additional funding is provided by the government, how can our internal budget be arranged so that integration can be supported?

How much of the tax dollar should be devoted to integration?

Will more funds be allotted for transportation, school aides and other resource personnel?

Will funds be allotted to upgrading facilities in older schools in preparation for the arrival of handicapped children? Are new schools being designed to accommodate the handicapped?

3. Selection of Personnel

Will integrated schools be designated as special status schools, and, as such, will selection of teachers and principals be determined on this basis? Will teachers be given the option of accepting or rejecting an integrated classroom?

Will greater demands be placed on principals for increased competency in governing an integrated school and will he/she be given authority to hire his/her own staff?

Will a clear definition of professional development obligations be provided?

4. Criteria for Student Placement

What guiding principles will be used in deciding placement for handicapped children to ensure successful functioning in a particular setting? What procedures are necessary for integration at the school level?

What can be done to alleviate the age-grade placement dilemma?

What type of assessment procedure will be established to evaluate and monitor a student's progress in an integrated program?

Will all persons concerned with a particular student be given a mutual voice in deciding his/her placement?

How are schools selected for integration and will consideration be given to the needs of staff, students and community?

Can flexibility and appropriateness in the placement of individual children be maintained?

5. Teacher Qualifications

What type of special qualifications will regular teachers require?

What attitudes do teachers presently hold regarding integration?

Will regular in-service training be provided for teachers? Will special education teachers be required to become familiar with regular classroom procedures?

What kind of teacher preparation courses will be offered at the university level? Should special education be a part of the regular pre-service program?

6. Curriculum

Will a clearly defined curriculum for all classrooms be established in the near future?

7. Pupil-Teacher Ratio

Is the Calgary Board of Education and the provincial government prepared to significantly lower the pupil-teacher ratio where handicapped students are placed in regular classes?

What is the optimum class size for integration?

What can be done to ensure that children capable of full integration are returned to their neighborhood school?

What safeguards are going to be included to ensure that the needs of all children are met, particularly demands for individual attention? What provisions will be made for extra staffing?

What can be done to equalize the work load between special education and regular teachers?

8. Communication Among Personnel

Can we improve the communication between special and regular class teachers?

How can parents be informed of the actual nature of integration? Are the concerns of parents of non-handicapped children being taken into consideration?

Will area office personnel serve as a liaison between the system and the schools and between the schools and the community regarding the philosophy and direction of integration?

9. Social Impact on Handicapped Students

What can be done to eliminate discrimination?

What can be done to maximize positive interaction between handicapped students and regular peers (including those in integrated classes and those in segregated settings)?

How can teachers establish an atmosphere of mutual acceptance and respect in integrated classrooms?

10. Political Pressure

Can the program work without increased political pressure to integrate children too quickly?

How can we guard against red tape? How can we prevent each individual child from getting lost in the bureaucracy of rules and regulations? Will the rules and guidelines be flexible in order to meet the needs of every individual child?

CONCLUDING COMMENT

The preceding sections report a series of interviews in which information to help identify the problems associated with the integration of handicapped children into the regular schools of the Calgary Board of Education was collected. The findings presented above reflect the opinions of experts and interested individuals about the current status of integration, and about the problems which they see as relevant to further steps in the integration process. Overall, the people interviewed feel that integration is a viable way of meeting the needs of some handicapped children, but they have raised many concerns about operational problems associated with its implementation.

Report #4: Regular Schools

A Report of Survey of Calgary Schools on the
Topic of Students with Special Learning Needs

Concerning: Extent of Integration
Resources Required
To Support Integration

How are Calgary schools providing for
children with special learning needs
produced by handicapping conditions?

TABLE OF CONTENTS

Page

Introduction 4-3

Methods 4-3

Rationale and Objectives.............................. 4-3
Data Sources.. 4-4
Survey Design... 4-4
The Instrument.. 4-4
The Sample.. 4-5
Data Collection Procedures............................ 4-6
Data Analysis & Reporting Procedures.................. 4-7
Reporting Format...................................... 4-7

Presentation of the Findings 4-7

Topic #1 - Number of Students with Handicapping Conditions................................ 4-7
Topic #2 - Segregated Curricular and Extra-Curricular Activities, and
Topic #3 - Amount of Time Spent in Special and Regular Programs........................ 4-16
Topic #4 - Student-Staff Ratio........................ 4-17
Topic #5 - Special Personnel.......................... 4-17
Topic #6 - Special Training........................... 4-21
Topic #7 - Special Planning........................... 4-24
Topic #8 - Special Materials and Equipment, Architectural Modifications & Transportation Arrangements.............. 4-25
Topic #9 - General Comments........................... 4-30

Summary of the Findings 4-33

LIST OF TABLES

Page

Table I: School Sample and Population Size, By Level of School . . . 4-6

Table II: Number of Students with Various Handicapping Conditions, By School, By Severity of Handicap, By Means of Assessment And By Type Of Handicap 4-8

Table III: Frequency Distribution of Ratios of Numbers of Student Handicaps to Total Enrollment, By School Level . . 4-12

Table IV: Number of Students with Various Handicapping Conditions, by School Level, by Severity of Handicap and by Means of Assessment 4-13

Table V: Frequency Distribution of Numbers of Schools With Varying Amounts of Handicapped Pupils, By School Level And By Means of Assessment 4-14

Table VI: Frequency of Use and Rating of Adequacy of Special Personnel for Elementary Schools Only (N=20) 4-18

Table VII: Frequency of Use and Rating of Adequacy of Special Personnel for Secondary Schools (N=9) 4-20

Table VIII: Use of Special Materials and Equipment, and Ratings of Adequacy; Regular Schools Only (N=29) 4-26

Table IX: Use of Special Materials and Equipment, and Ratings of Adequacy; Special Schools Only (N=6) 4-27

Table X: Ratings of Adequacy of Building Modifications; Four Regular Schools Reporting 4-29

Report #4: Regular Schools

How are Calgary schools providing for children with special learning needs produced by handicapping conditions?

INTRODUCTION

For the purposes of the study, it was necessary to examine the extent to which integration was presently operating in the Calgary schools. One approach to this question was an analysis of central statistical data, presented in Report #2. A second approach was through direct questioning of the schools. The results of that second approach are reported here, and in Reports #5, #6 and #7 (data from interviews with principals, regular teachers and special class teachers).

A sample of all schools in Calgary was selected to be representative of the total population of Calgary schools. Each school in the sample was asked to respond to a written questionnaire asking about various aspects of the provision of service to handicapped students. All schools but one responded to the questionnaire. In most cases, principals completed the questionnaire with the assistance of an ad hoc committee of teachers.

Findings indicate generally that there is seldom such a thing as a "program" of integration in any one school, and that integration usually takes place on a case-by-case basis in response to the needs of a particular child. Almost all schools have some students who are at least moderately handicapped.

METHODS

Rationale and Objectives. The Calgary Board of Education has been criticized for not moving quickly enough to achieve full integration on the Cascade model. The Board is concerned to have a description of its present services to handicapped children, and to receive advice on how they should be improved. Some of the handicapped children within the schools have been identified by Student Services and are receiving special assistance; other students with learning difficulties have not been formally assessed and will be proceeding with whatever assistance the regular school personnel can provide. In order to estimate total numbers of handicapped students in the school system, it was considered necessary to go directly to the schools.

Two formal objectives were specified for this part of the study, namely:

1. To estimate the number of school children defined by their teachers as handicapped, whether or not the children receive Special Education services.

2. To explore the resource capabilities of the schools to provide for such children.

Data Sources. Information was retrieved from a sampling unit of schools. Principals were asked to respond to a written questionnaire. The questionnaire was lengthy, and the suggestion was forwarded that principals ask the assistance of a committee of teachers.

Survey Design. The design was a simple descriptive survey. The sample was stratified by school level to ensure representation from all grade divisions, and to allow comparisons among divisions.

The Instrument. The questionnaire was long and detailed. Questions were all in closed format with the exception of open-ended "general comments" questions added to each section and to the end of the questionnaire. Each section of the questionnaire contained a statement of rationale for the question, followed by the actual response display.

The questionnaire contained nine (9) sections. One asked for the number of students with handicapping conditions, two asked for information on integration activity, one asked for pupil/teacher ratios, four questioned availability and adequacy of various resource supports, and the final section was for general comments.

The questionnaire was developed by the research staff, was submitted to the study Steering Committee for critique, and was pre-tested in 6 schools. Two problems emerged during the initial developmental period, and these problems remained to trouble instrument usage throughout its entire administration.
Both problems concerned the definition of "handicapped." There is not common agreement on what types of disability shall be classed as handicap, nor what level of disability shall be judged as severe enough to be classed as a handicap. It was eventually decided to classify type of handicap according to the budget codes used by Board administration, with an "other" category provided. The following categories were listed on the questionnaire: intellectually handicapped, learning disabled, socially maladjusted, language deficit, physically handicapped, hearing impaired, visually.

impaired and "other." Level of handicap was classified into mild, moderate or severe according to the capacity of the child to participate in a regular classroom situation. The following definitions were used in the questionnaire:

a. Mild Handicapping Conditions: are ones that enable student to work well in regular classes full-time without special assistance or with occasional, limited supportive services and supplementary instructional assistance.

b. Moderate Handicapping Conditions: are those that usually require students to participate less than full-time in regular classes because they need the assistance available in special classes, resource rooms, or instructional stations part-time or full-time.

c. Severe Handicapping Conditions: are ones that usually require full-time and extensive special assistance in home, hospital, residential, or other total care setting.

Experience with the final administration of the questionnaires would indicate that these definitions were not familiar to some principals. Phone calls were received from some individuals, asking usually about the difference between "intellectually handicapped" and "learning disabled," and about the meaning of "language deficit". Callers were informed that "intellectually handicapped" referred to the retarded or low IQ student. They were asked further to distinguish speech problems from language deficit.

Questionnaires were returned from all but one of the schools in the sample. The principal of this one school said that he was "too busy."

The Sample. The sample was a stratified random selection from among the school population of Calgary. The population was first stratified according to level: classified as elementary, Grades 1-6; junior high, Grades 7-9; and senior high, Grades 10-12. Special schools were removed from the level classifications as a separate stratum.

Some omissions were made from the population lists before the random sampling techniques were applied:

i. schools with less than 100 pupils were omitted from the list. Twelve schools were omitted for this reason.

ii. some schools in Calgary are multi-level, i.e. they are combined elementary-junior or junior-senior. Those schools were moved into a non-combined category according to the level with the greater number of students. Twenty-five schools were re-classified for this reason.

iii. special schools were left in the sample only if they taught handicapped children where integration of students was a possibility. Schools selected were two segregated day schools for the trainable retarded, the city facility for youths under detention, one segregated day school for elementary learning disabled children, two residential treatment homes for behaviour problem children, and an inpatient/outpatient school operated in association with a local children's hospital. Special schools omitted from the sample were an alternative school at the elementary level, an alternative high school, the school within a small residential treatment facility for autistic children, the home-confined "school" (a non-classroom program), and two English as a Second Language "schools" (actually housed in other facilities).

The population figures in Table I below have omitted those 12 schools which were, in fact, omitted from the sampling framework because of small size. The table shows the combined elementary-junior and junior-senior schools reclassified in the same manner as they were reclassified for sampling purposes.

Table I:

School Sample and Population Size
By Level Of School

School Level	Total In Calgary	Selected For Sample	Per Cent Size* Sample
Elementary	119	21	18%
Junior	40	7	18%
Senior	15	3	20%
Special	--	7	--
TOTAL	174	38	

*All 12 schools with less than 100 students are classified as elementary schools. If they are added to the number of elementary schools in the population, the percentage sample size for elementary schools becomes 16%.

Data Collection Procedures. Questionnaires were hand-delivered to principals by an individual representing the research company. Copies of the Behaviour Checklist, used by teachers to rate their students, were delivered at the same time to the non-special schools only (see Report #8 for full description). Principals were advised that a committee of teachers would be useful in filling out the questionnaire, and they were requested to return the questionnaire within a week. After an appropriate lapse of time, during which approximately 20 questionnaires were mailed back, any non-responding schools were contacted and questionnaires were picked up personally. Thirty-seven of the 38 schools responded, with one elementary principal refusing to respond.

Data Analysis and Reporting Procedures. The small sample size and the closed nature of the questionnaire allowed for a fairly mechanical form of analysis. Responses to tabular questions were combined, by level of school, to produce composite tables. Open-ended comments were scanned for similarity of content and were grouped appropriately. Some cross-comparison of question to question is included when indicated.

One questionnaire was returned too late for the analysis. Data are presented, therefore, for 36 of the 38 sample schools.

Reporting Format. The section following, Presentation of the Findings, presents the findings in a topic by topic fashion, following the format of the questionnaire. The final section, Summary of the Findings, presents highlights of findings and draws out particular items which require notice.

PRESENTATION OF THE FINDINGS

The following is a question by question summary of the responses to the School Self-Study Form. The form asks twenty different questions grouped into nine topics.

Topic #1 - Number of Students with Handicapping Conditions:

The first question of the Self-Study Form asked for information on the number of students with specific handicaps.

The respondents were asked to indicate how many students in their school suffered from particular handicaps. They were also asked to indicate how severely handicapped the students are. Seven categories of handicap were specifically mentioned. These were: Intellectually Handicapped; Learning Disabled; Socially Maladjusted; Language Deficit; Physically Handicapped; Hearing Impaired; and Visually Impaired. In addition, extra space was provided for other handicaps, and respondents were asked to specify what these others were. The respondents were also asked to count separately students who have been identified as handicapped by Student Services, and those identified as handicapped by other means.

Table II shows the number of students with particular handicaps in each school in the sample. The table is long, and shows the results to this question in full detail. The text which continues after the table summarizes and describes the information contained in the full Table II.

(Regular Schools)

Table II:

Number of Students with Various Handicapping Conditions By School, By Severity of Handicap, By Means of Assessment and By Type of Handicap

The following abbreviations are used in the table:

IH: Intellectually Handicapped
LD: Learning Disabled
SM: Socially Maladjusted
Lang: Language Deficit
Phys: Physically Handicapped
HI: Hearing Impaired
VI: Visually Impaired

School Number	Assessed By Student Services			Assessed By School			Total
	Mild	Moderate	Severe	Mild	Moderate	Severe	
Elementary Schools * 01 (312 Enrolled)	1 Phys.	4 LD	1 SM				6
02 (174 enrolled)		1 Lang					1
03 refused to respond	-	-	-	-	-	-	-
04 (441 enrolled)	1 HI 2 VI	6 LD 8 SM 14 Lang 3 Phys 1 HI					35
05 (410 enrolled)	3 IH 2 LD 5 SM 4 Lang 1 Phys 1 Other	1 SM					17
06 (two special classes of TMH: 144 enrolled)	2 Phys 1 HI 1 Other	3 Other	16 IH 15 Lang 1 HI 1 Other				40
07 (320 enrolled)	6 LD 9 SM 10 Other	2 IH 2 Other	1 VI	60 Lang (reading deficit)			90
08 (295 enrolled)	40 IH 9 Lang 2 Phys 2 HI	10 IH 33 SM 9 Lang 1 HI	3 IH 2 SM 3 Other				114
09 (267 enrolled)	3 LD 9 SM 1 Lang	1 IH 5 LD 2 SM 1 HI	2 SM 1 Phys	1 VI			26
10 (129 enrolled)				1 LD 1 SM 7 Other			9

Table II Continued

School Number	Assessed by Student Services			Assessed By School			Total
	Mild	Moderate	Severe	Mild	Moderate	Severe	
11 (484 enrolled)	58 LD 8 SM	2 LD	1 LD	20 LD 4 SM 3 Phys	1 Phys		97
12 (349 enrolled)	1 LD 21 SM 1 HI 1 VI						24
13 (167 enrolled)	1 SM	10 IH		3 Lang 10 Other	2 Other		26
14 (513 enrolled)	6 LD 3 SM	7 LD 3 SM 3 Lang		3 LD 1 SM	2 LD		28
15 (448 enrolled)	4 IH 14 LD 14 SM 8 Other						40
16 (two EMH special classes:187 enrolled)	13 SM 2 Lang 1 HI 9 Other	2 Lang	15 IH	1 SM 2 Phys 1 HI			46
17 (367 enrolled)	1 IH 3 LD 1 SM 3 Lang 5 Other	1 IH 3 LD	1 SM 1 Phys				19
18 (209 enrolled)	7 IH 2 SM						9
19 (293 enrolled)	2 IH 16 Lang 1 HI 35 Other			8 Other			62
20 (592 enrolled)	6 IH 5 SM			25 SM 9 Lang 1 Phys 2 HI 1 VI 5 Other			54
21 (322 enrolled)	4 IH 5 LD 5 SM 4 Lang 1 Phys	2 IH 2 LD 1 SM 1 Lang	1 IH 1 LD	10 IH 7 LD 3 SM 3 Lang 1 Phys	6 IH 5 LD 4 SM 1 Lang	1 IH 1 LD	69
Junior High 31 (has modified programs for low-achieving students;712 enrolled)		156 IH	3 IH 1 SM	151 IH	93 IH 4 SM	1 SM 1 Phys	410

(Regular Schools)

Table II Continued

School Number	Assessed By Student Services			Assessed By School			Total
	Mild	Moderate	Severe	Mild	Moderate	Severe	
32 (430 enrolled)	1 IH 5 LD 3 SM		1 SM	6 LD 9 SM 1 Lang 5 Phys	3 SM		34
33 returned too late for analysis	-	-	-	-	-	-	-
34 (458 enrolled)	4 IH 8 LD 3 SM 2 HI			2 SM 1 Phys 5 Other			25
35 (174 enrolled)			1 Phys				1
36 (591 enrolled)		1 HI		40 IH 2 LD 12 SM 9 VI	20 IH 6 LD 8 SM		98
37 (338 enrolled)	20 IH 5 LD 9 SM 3 Lang 8 HI 4 VI	2 IH 1 LD 1 SM 1 Lang 1 HI	1 IH 1 SM 1 Lang	25 LD 14 SM 6 Phys	9 LD 13 SM 2 Phys		127
Senior High 41 (has Eng. as a Second Lang. classes:1,815 enrolled)		50 Lang		360 IH 200 SM 10 Lang 1 Phys 1 VI	100SM 2 Phys	10 SM 1 Phys	735
42 (1,552 enrolled)	10 IH 5 LD 10 SM 3 HI 1 VI			20 IH 20 LD 40 SM 20 Lang 5 Phys			134
43 (1,111 enrolled)	1 SM 1 Lang 2 Phys						4
Special Schools 51 (for TMR: 158 pupils)		100 IH 158 Lang 5 HI 4 VI	58 IH				325
52 (detention-approx. 45 spaces)						45 SM	45
53 (for LD - approx. 80 spaces)		1 VI	80 LD 40 Lang				121
54 (for TMR:46 pupils)			46 IH				46
55 (residential home: 53 pupils)	25 LD	12 IH 10 LD 48 SM 12 Other	2 IH 5 LD 15 SM 2 Other				131

Table II Continued

School Number	Assessed By Student Services			Assessed By School			Total
	Mild	Moderate	Severe	Mild	Moderate	Severe	
56 (residential home; 12 pupils)			1 IH 10 SM 1 Phys				12
57 (Hospital school:approx. 70 spaces)	11 IH 3 LD 24 Phys	13 IH 2 Lang 13 Phys 1 VI	16 IH 1 LD 2 SM 5 Lang 33 Phys 2 VI				126

* Enrollments for regular schools are the pupil count as of September, 1977.

Three observations are noted in interpretation of the table:

1. Principals were asked to identify numbers of pupils with various handicapping conditions. Since one pupil may exhibit more than one handicapping condition, there are instances of double counts of figures in the tables. This is very obvious in the figures for the special schools, where the totals of handicaps are generally much larger than the totals of students. Instances of double count are not as high in the figures provided by the regular schools. The total of numbers entered into Table II should be understood to be higher than the total number of identified handicapped students.

2. There is considerable variation among schools regarding numbers of identified handicapped. Totals range from 1 to 735. Some of the variation is attributable to size of school and to socio-economic district of the neighbourhood. In other words, it is true variation based on the actual pupils in the school. Other variation is attributable to definitional considerations and to organization of students within a school.

The extent of variation attributable to school size is indicated in Table III below, which shows the number of non-handicapped pupils enrolled for each declared handicapped pupil in the schools. Total enrollment was divided by numbers of handicapped to produce a ratio of one handicapped pupil per X number of students.

About half the elementary schools claim a handicap/total enrollment ratio of between about 1:10 and 1:25. Some of the remaining schools claim a higher ratio, and some claim a lower ratio. The junior and senior high schools show considerable variation in their handicapped/total enrollments. The difference between the ratios indicates that while some variation between numbers of handicapped can be attributed to school size, some must be attributed to other sources.

(Regular Schools)

Table III:

Frequency Distribution of Ratios Of Numbers of Student Handicaps To Total Enrollment, By School Level

Ratio	Elementary	Frequency Junior High	Senior High
1:2	-	1	1
1:3	1	1	-
1:4	3	-	-
1:5	3	-	-
1:6	1	1	-
1:7 - 1:15	6	1	1
1:16 - 1:25	4	1	-
1:26 - 1:75	1	-	-
1:76 +	1	1	1
TOTAL SCHOOLS	20	6	3

The questionnaire was designed to assess numbers of handicapped students as defined by their school. Students who may be handicapped in some respect but whose handicap is not recognized by their school will not show in the figures in Table II. The numbers in Table II must be understood to mean "handicapped as defined by their school," not "handicapped as defined by an external set of criteria."

3. Principals were asked to identify, separately, numbers of handicapped students assessed by Student Services and numbers of handicapped students assessed using their own procedures. Some schools replied with a double-count procedure, listing the same pupils in both sections. Where this was indicated by the principal, the double-count figure was removed from the table by entering the figures only in the "Assessed by Student Services" column. It would appear that there are some instances of double-count left in the data, in particular with schools 21 and 31.

Table II will now be described in light of the above qualifications.

Differentiation among schools in their definition and organization of "handicapped" is indicated by the variation in the "Assessed by School" column of numbers in Table II. Twelve schools list no students in this column, i.e. all their defined handicapped have been formally assessed by Student Services. Some schools, on the contrary, list relatively large numbers of students in this column. School 07, for example, is an elementary school with streamed reading classes for low-achieving students, and the 60 students in the streamed class are listed as mildly handicapped. Other schools may have students with equivalent abilities. If no special recognition has been made of these students, they will not be included in the figures of Table II.

In order to discuss Table II further, total aggregate figures must be presented. Table IV below summarizes the information in Table II by removing the identification of type of handicap, and by showing only totals for the various grade levels and severity of disability. The special schools are not shown in the table. Since they are uniquely constituted of defined handicapped pupils, they are not considered further in the analysis which follows.

TABLE IV

Number of Students with Various Handicapping Conditions, by School Level, by Severity of Handicap, and by Means of Assessment
(N = 20 elementary, 6 junior high and 3 senior high)

School Level	Assessed by Student Services			Assessed by School			Totals
	Mild	Moderate	Severe	Mild	Moderate	Severe	
Elementary	386	144	66*	193*	21	2	812
Junior High	75	163*	9	288*	158	2	695
Senior High	33	50*	0	677*	102*	11	873
TOTALS	494	357	75	1,158	281	15	2,380

*These figures are inflated by the inclusion of unusually large numbers from one or two of the schools.

TABLE IV - A

(Table IV in percentages of total)

School Level	Assessed by Student Services			Assed By School			Totals
	Mild	Moderate	Severe	Mild	Moderate	Severe	
Elementary	16.1	6.0	2.7	8.0	0.9	.10	33.8
Junior High	3.1	6.7	0.3	12.0	6.6	.10	28.8
Senior High	1.3	2.3	-0-	29.0	4.3	.50	37.4
TOTALS	20.5	15.0	3.0	49.0	11.8	.70	100%

The total number of individuals identified within the various handicapping categories is 2,380. The total number of pupils in the responding schools are 6,423, 2,703, and 4,478 for the elementary, junior high and senior high levels respectively. The percentages of individuals identified are then 13%, 26% and 19% of totals for the elementary, junior high and senior high levels respectively. These percentages should be seen as maximum high estimates of numbers of handicapped students due to the presence of double counts in the data. The senior high figure, in particular, is extremely high due to the presence in the sample of one school which declared very large numbers of handicapped pupils.

The footnote to Table IV mentions that a few schools have inflated the totals by contributing unusually large numbers of students. The phenomenon has been identified and illustrated by the distribution of ratios in Table III. Table IV below, further clarifies the situation by rearranging the information in Tables II/IV in the form of a frequency distribution of actual numbers of handicapped students. The entries in Table V indicate the numbers of schools having differing amounts of handicapped pupils.

Table V:

Frequency Distribution of Numbers of Schools
With Varying Amounts of Handicapped Pupils,
By School Level and By Means of Assessment

Numbers of Handicapped	Elementary		Junior High		Senior High	
	Assessed Student Services	Assessed School	Assessed Student Services	Assessed School	Assessed Student Services	Assessed School
0	1	10	-	1	-	1
1-10	3	5	2	1	1	-
11-25	7	1	2	1	-	-
26-50	6	3	1	-	2	-
51-100	2	1	-	2	-	-
101-250	1	-	1	1	-	1
251 +	-	-	-	-	-	1
TOTAL SCHOOLS	20	20	6	6	3	3

Sixteen of the twenty elementary schools consider that they have between 1 and 50 handicapped pupils within their student population, as identified by Student Services. Half of these schools have identified no further handicapped pupils, and a further quarter have identified less than ten. The junior and senior high schools have disproportionately fewer pupils identified by Student Services, compared to their increased size. However, they show a tendency to identify proportionately greater numbers of students as handicapped, using their own means of identification. The variance between the schools is evident from the length of the frequency columns. Calculations comparing numbers of handicapped to school size have been shown in the previous Table III. They indicate that school size does not completely account for the differing numbers of handicapped pupils.

It was noted previously that principals were invited to fill in an "other" category if they could not classify some individuals according to the categories provided. Ninety-four (94) individuals were classified as "other." Specifications of "other" included: speech problems (39), brain-damaged (14), seizures (2), perceptual-motor problems (3), behaviour problems (11), 'emotional" problems (5), hyperactive (6), attendance (3), "have difficulty learning" (4), gifted (2), and "cultural" (5).

Table IV, which shows the frequencies of schools with varying numbers of handicaps, does not show frequencies of schools with mild, moderate and severe categories of student. Reference to the complete Table II indicates that nine (9) of the twenty elementary schools have severely handicapped students. Only two of these nine schools have Special Education classes located within them. Four of the six junior high schools, and one of the three senior high schools, has severely handicapped pupils.

Summary of Topic #1. Principals from a random selection of regular schools in the Calgary public school system indicate a maximum of 17% of total of students with handicapping conditions. The figure is a high maximum due to the presence of double count of multiple-handicapped students in the data. The percentage figures for the elementary, junior and senior high levels respectively are 13%, 26% and 19% of total. The junior and senior high percentages are regarded as suspect due to the extreme variation between numbers of declared handicapped in the various schools, i.e. the definitions of "handicapped" received the least common understanding at the secondary levels. The elementary figure of 13% seems to be a more accurate estimate. Double counts are not evident for the elementary data, and would not be possible from some schools, indicating a true percentage of a possible estimated 11%-12%. Two-thirds of the elementary schools claim to have between 10 to 50 handicapped pupils among their total enrollment. The size of total enrollment of the elementary schools ranges from about 150 to about 450 pupils, with most schools having 300 or more enrolled students.

Analysis to highlight distribution of various types of handicap has not been performed on the data. Visual inspection of Table II indicates that all types of handicap classification appear to be distributed fairly evenly among schools, with the exception of the severely handicapped who tend to be confined to special classes.

Twelve of the twenty-nine schools have no students who have been defined as handicapped but not assessed by Student Services. Seventeen of the twenty-nine have students whom they define as handicapped, in addition to any students who may have been assessed by Student Services.

Topic #2 - Segregated Curricular and Extra-Curricular Activities:

and

Topic #3 - Amount of Time Spent in Special and Regular Programs:

The second section of the Self-Study Form aims at determining which activities are not integrated for handicapped students. Respondents were asked to identify segregated activities and the number of students segregated, for each category of handicap. Specifically, respondents were asked to list activities in which integration is not currently possible. The third section asks the respondent to estimate the amount of time students spend in integrated activities, for each category of handicap.

Of the regular schools, sixteen (16) reported no segregation. In one other case, the only segregation mentioned was the sending of one student to Wm. Roper Hull Home full-time. In two other cases, the only segregation involved sending students out to the Learning Assistance Centre, or to the English as a Second Language courses.

Ten regular schools reported some segregation. Where segregation did occur, there was a good deal of variation in the amount. There are physically handicapped students who are only segregated from physical education activities (8 reported in 6 schools), or from shop and typing courses (five reported in 1 school). These students typically spend 76% to 100% of their time in integrated activities. Two other physically handicapped students spend 25% to 49% of their time in unspecified segregated activities. Both these students are severely handicapped.

In other cases, severely intellectually handicapped students spend less than one-quarter of their school time in integrated activities. These students are segregated from most or all of the regular academic activities. Some language deficient students who were identified as ESL students spend 26-50% of their time in integrated activites, and were segregated from reading and social studies classes. Other ESL students spend 51-75% of their time integrated.

The special schools all have completely segregated programs, and this question was not relevant to them.

Topic #4 - Student/Staff Ratios

The fourth section of the Self-Study Form is concerned with student/teacher ratios and student/aide ratios. Specifically, the section asked for data comparing student/teacher ratios in integrated and non-integrated programs. All but seven regular schools reported only one student/teacher ratio. The question did not apply to special schools.

Overall, student/teacher ratios ranged from 32/1 to 20/1. Special classes had lower student/teacher ratios, ranging from 6/1 for a class of learning disabled children, to 21/1 (with an aide) for a class of physically handicapped children.

Four schools reported student/aide ratios. Three of them reported ratios of 300/1,447/1 and 585/2. The other, where the aide was associated with a kindergarten,reported a ratio of 21/1.

Topic #5 - Special Personnel

The fifth section asks about special personnel. This includes consultants, support staff, specialized teachers, and other professional and para-professional people. Two questions are asked in this section. The first requires the respondent to complete a table. The table asks for five types of information about 15 different types of special personnel. The five types of information are: (1) types and number of special personnel used; (2) frequency of use; (3) evaluation of quality of assistance; (4) number of each type of personnel available; and (5) problems encountered.

The second question invited general comments about the use of special personnel.

In several cases, the table in the first question of this section was not filled in completely. The totals in each row of the tables to follow may not always be consistent for example, ten schools may report using some type of service, but only eight of those schools will provide a rating.

Table VI below shows the frequency of usage and rating of adequacy of special personnel for the elementary schools only. Mention of problems encountered are included in the table. The types of personnel are arranged in order of decreasing frequency of use.

Six schools made use of the "other" category. Two used itinerant teachers for sensory impaired students. One was rated adequate; the other was rated inadequate, not enough time. Three schools use physiotherapy or the Mobile Team from the Children's Hospital. Ratings were adequate. One school filled in "ESL" on a daily basis with a "very adequate" rating.

Table VI:

Frequency of Use and Rating of Adequacy of Special Personnel For Elementary Schools Only (N=20)

Types of Special Personnel	Total Using	Frequency of Use				Adequacy			Problems
		Daily	At Least Once/Wk	At Least Once/mth	Infrequent On-Call	Adequate	Inadequate	No Rating	
1. Visiting Teacher	20	-	17	3	-	7	11	2	Not enough time (9 mentions)
2. School Psychologist	16	-	-	9	7	7	8	1	Delays, not enough time (8)
3. Speech Pathologist	16	-	12	4	-	8	7	1	Not enough time (3) Part year (2)
4. Public Health Nurse	16	-	13	3	-	8	7	1	Not enough time (1)
5. Resource Room Teachers (incl. & EOF)	7	7	-	-	-	5	-	2	
6. School Aides	7	3	4	-	-	1	5	1	Not enough time (3)
7. Remedial Clinician (inc. LAC)	6	1	4	1	-	2	3	1	Delays, not enough time (2)
8. Psychiatrists	6	-	2	-	4	1	3	2	Delays, not enough time (2) Waste of time (1)
9. Social Worker	6	-	-	3	3	-	4	2	Won't return calls (1) Doesn't contact school (1) Gives up too easily (1)
10. Teacher Aides	5	4	1	-	-	3	1	1	
11. Special Education Consultants	3	-	1	2	-	2	1	-	
12. Special Class Teachers	2	2	-	-	-	2	-	-	
13. Guidance Counsellors	2	-	1	-	1	1	1	-	
14. Volunteer Adults	2	-	2	-	-	2	-	-	
15. Peer Tutors	1	-	-	1	-	-	-	1	

Inspection of Table VI indicates that all elementary schools in the sample make use of the visiting teacher. More than half find the service inadequate, due to case overload and lack of time. Similar comments were made of the School Psychologist and the Speech Pathologists. The process of requesting testing, having the assessment done and receiving the report back can be lengthy. The Speech Pathologist also was described as suffering from work overload. Some schools find the 5 month or 3 month placement of the Speech Pathologist inadequate. School aides (seven schools using) and remedial clinicians (6 schools using) were another category for which "not enough time" was mentioned as a problem. Of those schools using Resource Room teachers and teacher aides, most find their services adequate. Only two schools use volunteer adults, and their service was rated as "adequate."

Table VII following provides the same type of information for the secondary schools in the sample. The secondary schools generally use fewer special personnel than the regular schools, and the information provided in the questionnaires was less complete than from the elementary levels.

Table VII confirms that the secondary schools make less use of special personnel than do the elementary schools. Guidance counsellors were listed for seven of the nine schools, and were rated as adequate by 5 of the 7. The individual who did not provide a rating noted that he had no way of assessing whether they were adequate or not. Lack of time is again mentioned in connection with the school psychologist. Visiting teachers are used by 6 of the 7 schools. In all cases, they visit the school on a less-than-weekly basis.

The information on specialized personnel provided by the special schools is not reported in this section. These schools form an atypical group, often using services provided by agencies or personnel outside the school system. Also, the special personnel in these schools work in support of assistance to segregated students, not to integrated students, and their functions should not be compared with those of personnel working in the regular schools.

Comments were added by some respondents in support of the ratings which they had provided. Comments typically dealt with the heavy workload of the personnel, which in turn affects quality of service. Quality is affected in terms of continuity of service, of communication patterns with teaching staff, and in terms of actual time spent in service activity. The following comments are representative of the types of opinions provided by the schools:

> *The specialists do an excellent job, however, the system does not provide an adequate number of these people.*

Table VII:

Frequency of Use and Rating of Adequacy of Special Personnel For Secondary Schools (N=9)

Type of Special Personnel	Total Using	Frequency of Use				Adequacy			Problems
		Daily	At least Once/Wk	At Least Once/Mnth	Infrequent On-Call	Ade-quate	Inade-quate	No Rating	
1. Guidance Counsellor	7	5	1	-	-	5	1	1	
2. Visiting Teacher	6	-	-	4	2	4	1	1	
3. School Psychologist	6	-	1	3	2	2	2	2	Not enough time (1 mention)
4. Public Health Nurse	6	-	3	2	1	5	-	1	
5. Psychiatrist	4	-	-	1	3	1	3	-	
6. Social Worker	4	-	-	3	1	1	2	1	Social Worker has not authority (1)
7. Speech Patholigist	3	-	-	2	1	3	-	-	
8. Remedial Clinician	3	1	2	-	-	2	-	1	
9. Special Education Consult.	2	-	-	-	2	1	1	-	
10. Peer Tutors	2	1	-	1	-	2	-	-	
11. Special Class Teacher	1	1	-	-	-	1	-	-	
12. Attendance Officer	1	-	1	-	-	1	-	-	
13. School Aide	1	1	-	-	-	1	-	-	
14. Volunteer Adults	1	-	-	1	-	-	-	1	
15. Teacher Aide	0								
16. Resource Room	0								

The special personnel are of valuable assistance to the school. However, the time they have to devote to each school is extremely limited. This effects the continuity of dealing with the individual students and creates a problem in being able to communicate with classroom teachers. (Teachers are in the classroom teaching when the specialist is in the school. When the teacher has her lunch break, the specialist person is travelling to get her lunch, or on her way to the next school.)

We have had trouble obtaining the services of a psychologist during the first half of this year. Therefore, we have a number of students still requiring assessment before help can be adequately given. VT overloaded with referrals and schools.

The help we receive from remedial clinicians and tutors is very inadequate. Students who are initially identified by the school as having special learning difficulties must often wait one to two years for assessment and assistance in the form of tutoring.

The school psychologist has a back log of about 20 referrals. Visiting teachers: need more assistance, can't see 1/10 of students referred to her. We need a full-time visiting teacher and a half-time psychologist.

Our board of education Special Education Department are very capable and cooperative.

Topic #6 - Special Training

Section 6 of the Self-Study Form questioned the nature and extent of special training that had been done to facilitate integration. As in the previous section, this section consisted of two questions, the second of which was an invitation to comment. The first question was concerned with the form of special training, the topics covered, adequacy of the training, and problems encountered.

Findings are reported separately for the regular and the special schools.

Regular Schools. Fifteen (15) of the 29 regular schools report no training, either past or planned for the future, to expedite integration.

Of the 14 regular schools who do report some training:

One (1) says that staff orientation in the fall of the school year is the most suitable programme;

Four (4) mention workshops: two on teaching of the hearing handicapped, one on math drill for slow learners, and one on hyperactivity;

Seven (7) mention consultations provided by visiting authorities; in two cases the authority was not identified; in one case each, the authority or topic mentioned was the visiting teacher, the hearing handicapped, the visually impaired, behaviour physiotherapy, and both of speech problems and the EMH;

Four (4) mention informal assistance provided by resource teachers: in three cases, the topic was not identified, in one case the teacher was the speech pathologist. One (1) school also mentioned "many" instances of consultation with the guidance counsellor;

Five (5) mention lectures and discussions provided by visiting authorities: two specify a recent local conference on learning disabilities, one specifies conference speakers selected by the teachers, one specifies a topic of behaviour physiotherapy, and one does not comment further;

Two (2) mention visits to settings that have successfully implemented integration;

Two (2) mention University extension or regular courses; one did not specify the topic, one specified "gifted children;"

None (0) mentioned "workshops building skills needed to facilitate integration."

The ratings of adequacy for these training events are not reported. In fact, very few respondents provided ratings, and those which were provided tended to be "adequate" with no further explanation. The only item mentioned under "Problems Encountered" was lack of time.

Many of the schools supplied narrative comments on staff training. Almost all the comments mentioned the lack of time to take part in training opportunities. Two individuals mentioned that teachers can always spot the obvious problems in their students. The difficulty is in providing training to detect and assist the more subtle forms of handicap. Two individuals mentioned that no particular training is required for their staff.

> *"Teachers are trained and experienced to detect the very obvious type of handicap. There is always a need for growth of knowledge and skill in this area through in-service and special courses. The big question is one of time -- when?*

> *We believe that no integration of handicapped children should occur unless our staff receives some special training.*
>
> *We have no handicapped children to cope with in our school. But if we did the teachers involved would require most, if not all, of the training provided for the present day special classes - depending on the nature of the handicap(s) of the children being integrated.*
>
> *No training problem for staff felt required.*
>
> *Should staff members be asked to work with certain handicapped students, appropriate personnel would be brought in to work with them (training and advice).*
>
> *When does one have time for training personnel? Surely the staff should come to the school trained! Why should the classroom teacher have to do everything herself by herself!*
>
> *None of the present staff members have any training in the integration of handicapped students.*
>
> *We have done some work toward moving our school towards individually guided education which in the end will help with dealing with both handicapped and gifted students.*

Special Schools. The respondents from special schools tended to use this question for a different purpose than did respondents from the regular schools. Special school respondents tended to provide lengthy comments on the requirements for training adequate to support integration, but they tended not to provide detail on current training activity of their staff. In some cases, staff in the special schools have had specialized educational training as a prerequisite for their present positions, and no further training is thought to be necessary. In other cases, staff in the schools, while they are familiar with integration-related topics, work exclusively with segregated students. The two schools which did provide information on training mention a range of workshops, informal consultation with authorities and University courses.

Comments provided all stress the need for careful training and planning in any integration activity. The need for practical experience to supplement academic learning is also mentioned.

> *All staff should be adequately prepared . . . through in-service training and retraining.*

> *Educators should acquire the capacity to translate into direct action the principles . . . that handicapped children have the right to pursue their lives without restriction arising from stigmatization and community isolation.*
>
> *Skilled teachers need a balance of book knowledge and practical experience along with sensitivity and compassion and the guidance of highly motivated professionals. The pedagogical methods of traditional education have in themselves not been useful.*
>
> *Regular and special education teachers, and administrators must share equally in planning and implementation for the handicapped.*
>
> *The University of Calgary does not provide adequate course work for children with emotional disturbances or learning disabilities. Hence teachers must leave the city for training. This is a definite disadvantage to our staff.*
>
> *As this is one of the schools whose pupils are constantly being "integrated," it is important for the teacher "here" to know what is out "there." For the elementary grades it is important for teachers to have some special ed. training. In the secondary grades, it is important for teachers to keep in touch with the "normal" so that realistic placements can be made.*
>
> *Classroom teachers should be a member of the assessment team, and have a major role in determining individual educational programs. Staff should work closely with parents.*

Topic #7 - Special Planning

The seventh section of the questionnaire asks about special planning. Respondents were asked to list specific planning activities, problems encountered, and to rate the adequacy of planning resources available to them. Findings are reported separately for regular and for special schools.

Regular Schools. Twenty-two (22) of the 29 regular schools report no special planning for integration activity.

Of the seven regular schools which do report planning for integration:

Two (2) mention planning for the use of special materials. Planning resources were rated as adequate. One school noted that the material for slow learners is still too difficult for some Grade One children.

Four (4) mention aspects of planning of programs or strategies, either for individual students or for the program as a whole. Specific activities included case conferencing, discussion with regular teachers and ordering bus tickets. Only two schools provided ratings of resource adequacy. One was rated adequate, the other was rated as inadequate due to lack of funding (this school wished to purchase an Individual Guided Education Kit, but did not have the necessary $300).

One (1) mentioned informal discussions with administrative and guidance personnel. One (1) reported that planning was carried out by various academic departments within the school in the sense that each department determined criteria for grading and grouping of students within that subject area.

Special Schools. Five (5) of the 7 special schools report planning for integration of their students. Planning includes assessment of students, working with other principals to find suitable placements, consulting with teachers regarding suitable teaching programs, etc. Problems mentioned were budget restriction (1), operating agreements between the CBE and other institutions (1), parental opposition to integration (i.e., parents of the handicapped) (1), and lack of lunchroom supervision and transportation facilities (1).

Topic #8 - Special Materials and Equipment, Architectural Modifications, and Transportation Arrangements:

The eighth section of the Self-Study Form asked several questions regarding special materials and equipment, architectural modifications and transportation arrangements. Each of these topics is discussed under separate heading.

Special Materials and Equipment. A total of 14 of the 29 regular schools report the use of special materials or equipment. Table VIII below summarizes the information provided by the regular schools. The materials are listed in decreasing frequency of use.

About 1/3 of the regular schools report the use of tape recordings video materials and controlled readers for handicapped students. Ratings are most often "adequate." Where the rating was "inadequate," comments usually indicated that the materials themselves were adequate, but that they were not supplied in sufficient quantity. Four schools only use overhead transparencies. No school reports the use of special gym equipment, or special equipment in the gym and home economics rooms. One school, which is not entered into the findings of Table VIII, noted that they do have tapes, video materials, modular learning packages, etc., in the school, but that they are not for the exclusive use of handicapped students.

Table VIII

Use of Special Materials and Equipment, and Ratings of Adequacy; Regular Schools only (N = 29).

Materials & Equipment	No. of Schools Using	Rating		
		Adequate	Inadequate	No Rating
1. Tape recordings, records	8	6	2	--
2. Films, video tapes	7	4	2	1
3. Controlled readers	7	4	--	3
4. Modular learning packages, programmed workbooks	5	2	2	1
5. Slides, transparencies for overhead projectors	4	3	--	1
6. Braille or raised line textbooks	0	--	--	--
7. Special gym equipment	0	--	--	--
8. Special equipment for shops, Home Ec. rooms	0	--	--	--
9. Other: Large Print material	1	1	--	--
: typewriters	1	1	--	--

Table IX below presents similar information for the special schools. One school did not reply to the question, presumably interpreting a question related to integration materials as irrelevant to a segregated setting. The materials are again arranged in order of decreasing frequency.

All of these special schools have special gym equipment. Most report the use of other types of materials as appropriate to their particular type of school population. Ratings are most often "adequate" for all types of materials. As with the regular school group, "inadequate" ratings were usually accompanied by a note which explained that funding problems had produced shortages of materials. The situation is complicated in some of the institutions by the need to coordinate school board budget with funds from other agencies.

Table IX

Use of Special Materials and Equipment, and Ratings of Adequacy; Special Schools only (N = 6)

Materials and Equipment	No. of Schools Using	Rating		
		Adequate	Inadequate	No Rating
1. Special gym equipment	6	4	1	1
2. Films, video tapes	5	4	--	1
3. Tape recordings, records	5	2	2	1
4. Slides, transparencies for overhead projectors	5	3	1	1
5. Modular learning packages, programmed workbooks	5	3	--	2
6. Controlled readers	5	3	2	--
7. Special equipment for shops, home ec. rooms	4	1	2	1
8. Braille	0	--	--	--
9. Other: art materials	1	1	--	--

Comments were provided by several schools on the topic of special materials and equipment. All the comments are reproduced below.

> *We always feel that there are things we would like to acquire over and above what budgets will handle. I suspect this is a universal malady.*
>
> *There is provision for specifically handicapped, e.g. CP, but for mild handicaps, there is nothing.*
>
> *No special materials or equipment.*
>
> *The school could use a listening centre, including tapes and records of a remedial nature. We could also use more hand-operated AV viewers.*

> *Obviously, the more the better. However, I feel that it is important that any "special materials and equipment" placed in a school should be for the use of all pupils.*
>
> *The Board of Education should maintain a central supply of related materials which could be used by any school with handicapped students in attendance at that time.*

Architectural Modifications. It would appear that only 5 of the sample of 36 schools have received any modifications to architectural structures in their buildings. All were regular schools. One school reports having received carpet on a stairway, and the other four provided ratings on a number of school facilities. The ratings are shown in Table X below. One school, not included with the four in Table X, reported that ramps had been installed in the original building. Several schools noted that no architectural modification had been necessary.

Six schools used the question to indicate modifications which they needed. One needed a resource room (they presently use the teachers' workroom), one needed ramps to portable units, one requested a washroom with showers for special education classes, one would like to partition an open area space (the open area is distracting to children with emotional problems), one wants a time-out space, and one would require modifications for a wheelchair student.

Only one school provided written comments on architectural modifications.

> *Our school is not suitable for extensive modifications even if we so desired. Should the cost justify the use, schools which can be altered should be (altered). That is, ramps, elevators, mirrors, phys. ed. facilities, etc., should be modified in certain schools. Definitely, it would be ludicrous to consider such alterations for all schools as most do not have handicapped students in attendance.*

Transportation Arrangements. Respondents had been asked to identify other special arrangements such as transportation and accommodation, provided for the handicapped. One special school spoke of portable classrooms, all other responding schools made mention only of transportation arrangements. No school arranges its own transportation for handicapped students, although several make use of CBE centrally-provided facilities. Two (2) regular schools use the handibus, and both rated it adequate. Four (4) regular schools have children who are driven by private car. One (1) school taxis

Table X

Ratings of Adequacy of Building Modifications; Four Regular Schools Reporting

Building Feature	No. of Schools Reporting	Rating	
		Adequate	Inadequate
1. Layout of grounds	3	3	--
2. Parking arrangements	3	2	1
3. Main building entrance modifications (e.g., stairs, ramps, railings)	4	3	1
4. Hallway and foyer modifications	3	2	1
5. Changes in interior stairs, ramps, elevators	3	2	1
6. Rest room modifications	3	1	2
7. Changes in classroom entries and exits	2	1	1
8. Changes in arrangements of classroom furnishings	3	3	--
9. Resource Rooms	1	--	1
10. Changes in emergency exits	2	1	1
11. Cafeteria modifications	2	--	2
12. Vending machine modifications (including phones)	1	--	1

students to English as a Second Language classes. Seven (7) regular schools have students who use the city transit system.

The special schools generally have students who use all of the varied modes of transportation, with the exception of closed settings such as the institutions for delinquents.

Only two schools commented on transportation arrangements. One claimed that *"parent transportation is the best!"* The other comment was in the form of a request for adequate lunchroom and recreational facilities for bussed students.

Topic #9 - General Comments

The last section of the School Self-Study Form provided the respondents with a forum in which they could make additional comments. Most of them chose to do so. Indeed, only the respondents from three regular and two special schools had nothing to say.

This section included the question "Does your school have the staff, motivation and technical resources to integrate more handicapped students than it is currently doing?"

Of the special schools, four (4) did not respond and three (3) answered "NO." Comments added to the "NO" replies indicated that integration programs were taxed to the limits with children being integrated as quickly as they were able.

Of the 29 regular schools:

Five (5) did not respond. Some of the reasons for the non-response may be indicated by the comment of one individual that this was a "loaded" question.

Four (4) said "YES." All four qualified their answers. One said yes if more staff were available, a second said yes since this school has empty classrooms, a third said yes because special classes in the school are showing declining enrollment, and the fourth said yes on a limited basis depending on the nature and extent of the handicap.

One (1) replied "Yes and No" -- yes if more staff were available, no if the situation continues as at present.

Nineteen (19) said "No." Thirteen (13) of these schools explained their rating by stating that teachers were already worked to capacity, more personnel would be required, etc. *Where will you take from to give to the handicapped?* Two schools replied "No" on the basis that they had not studied or considered the issue.

The written comments are notably consistent in their concerns. One major concern is teacher time and demands on the teacher. Teachers are seen as already working to capacity and beyond. Addition of handicapped children would compound the difficulty unless appropriate support is provided.

> *The demands on the teaching and preparation time of teachers is already awesome. Placing severely handicapped students in regular classrooms would place an even greater demand on the teacher's time. It is ... vital that any program of integration does not place any additional burden on the teacher's already heavy and demanding task.*

> *The staff is currently working beyond what I feel is a full commitment in most part . . . I would hope I'm at another school if the workload is increased through integration and the resources are not.*

> *There is a limit to what human beings can do. If a way can be found to do this without taking from the time and resources available to all students, we're all for it.*

> *If this plan to put all handicapped children in the public school is designed merely to save money and place great additional burdens on the classroom teacher, I am very much opposed.*

Teacher preparedness for integration, in terms of expertise was also seen as a problem.

> *The human resources available to a school (e.g., psychologist, visiting teacher, etc.) are very limited. Teachers who have not taken special courses in dealing with specific handicaps are not able to deal with them properly, nor do they have the time because of high pupil/teacher ratio.*

> *We feel you need (for these programs) money; clear selection of integration schools and follow-up facilities (better ones); expertise of staff; support staff; clearly defined hierarchy within the system.*

> *It is difficult to visualize the regular classroom teacher, given the present level of training dealing with extreme cases. We must ensure that all resources, human and physical, are available if integration is to become a universal situation in our schools.*

> *We do not have the staff or expertise to integrate handicapped kids. Small staff, high class loads hamper progress. We find it difficult to meet the needs of "normal" kids. We need many more specialists to cope with the kids we have currently. We totally support the concept of integration, but we must have the necessary support.*

Another concern, closely related to the concern for lack of resources, is the concern for the general quality of education being offered. Several respondents expressed concern in this area.

> *Integration appears to be a defensible idea provided it does not seriously interfere with needs of other children in the school.*

> *Our main concern is that we have a fairly large population of students that have been identified as having learning difficulties . . . The integration of handicapped children into the normal classroom is something that our staff would not look favourably upon. If the integration was for social and emotional reasons, then we could be quite happy with the integration in physical education, music, art and some option programs.*

> *Teachers have a difficult enough task making programs meet the needs of the non-handicapped students. The general quality of education will be reduced if a large amount of their time is devoted to the education of handicapped students, as it must be if they are integrated.*

> *It is my feeling that schools presently are required to devote a disproportionate amount of time, resources, and effort on those pupils who have difficulty with the academic program or whose behaviour is such that it disrupts the learning process for other students . . . It is interesting, however, to speculate what results could be obtained from a similar program for above average students.*

Some concern was expressed, although by few respondents, that integration of the severely handicapped was an impossible contradiction in terms.

> *If a child has a physical, academic, or emotional handicap severe enough to make it impossible for him to function in a "regular classroom," it is a contra-*

> *diction in terms to talk of integrating such a pupil in a regular classroom. What is really being considered is the placing of a mini-special class in each classroom.*
>
> *Their functioning level (i.e. TMH) is almost too low to be integratable.*

SUMMARY OF THE FINDINGS

1. Principals estimate that approximately 11-12% of the student population at the elementary level is handicapped in some way. Estimates at the secondary levels are higher than 11-12%, but the validity of the estimate is suspect.

2. There is considerable variation among schools in numbers of handicapped. Sixty-five (65) per cent of the elementary schools claim to have between 10 and 50 handicapped students. Of the remainder, some have more and some have less. The variation between schools is not explained by the size of the school.

3. Forty-five per cent of the elementary schools have at least one severely handicapped student.

4. Fifty-five per cent of the regular schools report no segregation of handicapped students. Of the remainder, several segregate physically handicapped students for physical education only. Schools with intellectually handicapped in special classes segregate for academic subjects.

5. Support from specialized resource personnel is utilized by all regular schools. There is widespread expression of the lack of numbers and time available of such staff.

6. Fifty-two per cent of the regular schools report no training in support of integration. Of those which do report training, workshops, consultation with visiting authorities and lectures/discussions provided by visiting authorities are the most frequent mode.

7. Seventy-six per cent of the regular schools report no special planning for integration. Where planning activity was reported, it tended to focus on use of materials or on case-conference for individual students. Only one school in the sample approaches a level of school-wide planning for integration; this is a junior high school with graded class groupings.

8. Twenty-seven per cent of the regular schools report the use of tapes, films and video tapes, and controlled readers. Most schools find these materials adequate, except where funding constraints have produced shortages.

9. Seventeen per cent of the regular schools report architectural modifications to expedite integration.

10. Sixty-five per cent of the regular schools state "NO" when asked if they were willing to increase numbers of handicapped in their schools, given present levels of support. The reason offered in two-thirds of the cases is that teachers are already working to capacity. To add any demands would create impossible burdens.

11. General comments were provided which dealt with four major concerns:

i. the time and other demands which integration would place on the teacher;

ii. the readiness of regular teachers to integrate, given their frequent lack of expertise;

iii. effects on the general quality of education; and

iv. the presumed impossibility of achieving true "integration" with severely handicapped students.

Report #5: PRINCIPALS

A Report of Data Derived from Interviews
with Principals of Schools which have
Handicapped Students

Concerning:
- Definitions of Integration
- Extent of Integration
- Impact of Integration
- Resources Required to Support Integration
- Board Policy Concerning Integration

*What are the opinions of principals of
regular schools with handicapped students
concerning integration of handicapped children?*

TABLE OF CONTENTS

Page

Introduction 5-5

Methods 5-5
  Objectives 5-5
  Data Sources and Survey Design 5-6
  The Instrument 5-6
  The Sample 5-6
  Data Collection and Analysis Procedures 5-8
  Reporting Format 5-8

Presentation of the Findings 5-8
  Background Information 5-9
    Education and Experience of School Principals 5-9
  Definition of the Student Population 5-9
    Definition of Handicapped Student 5-9
    Definition of Integration 5-10
    Classification of Handicapped Students in the Sample Schools 5-10
    Non-Special Class Students (Predominantly Mildly Handicapped) 5-10
    Special Class Students (Predominantly Moderately Handicapped) 5-11
    Estimated Number of Moderately and Mildly Handicapped Children in the Schools 5-12
    Should Handicapped Children be Accommodated in the Regular Schools? 5-12
    Concluding Comment 5-13

Table of Contents Continued

Page

Nature and Extent of Integration 5-13

Organizing Special Class Handicapped Children and Regular Class Children for Instruction 5-13
Organizing Non-Special Class Handicapped Children and Regular Children for Instruction 5-15
Types of Activities from which Handicapped Children are Excluded 5-15
Approaches to Integration That Have Not Worked 5-15
Level of Satisfaction with Present Arrangements for Accommodating the Handicapped 5-16

The Effects of Integration 5-17

Effects on the Community 5-17
Effects on the Administration 5-18
Effects on Teachers 5-19
Effects on Regular Students 5-20
Effects on the Handicapped Children 5-20
Is Integration an Appropriate and Worthwhile Activity? . . . 5-20

Facilitators and Barriers to Integration 5-22

Facilitators 5-22
Barriers 5-23

Resources Necessary for Successful Integration 5-24

Calgary Board of Education Policy with Respect to Integration 5-25

Little Evidence of Board Policy 5-25
Need for Policy Guidelines 5-25

Current Practice of the Calgary Board of Education with Respect to the Education of the Handicapped 5-28

Quality of Service Provided to the Integrated Schools 5-28

Table of Contents Continued

Page

Summary 5-29

Definition of Handicapped.................................... 5-29
Definition of Integration.................................... 5-29
Numbers of Handicapped Pupils................................ 5-29
Nature and Extent of Integration............................. 5-30
Effects on the Community..................................... 5-30
Effects on School Administration............................. 5-30
Effects on Teachers.. 5-31
Effects on the Non-Handicapped Students...................... 5-31
Effects on Handicapped Students.............................. 5-31
Resources to Support Integration............................. 5-31
Desired Levels of Integration................................ 5-31
Opinions Concerning Current Services to the Handicapped.......... 5-32

LIST OF TABLES

Page

Table I School Principal Interview Schedule 5-7

Report #5: PRINCIPALS

What are the opinions of principals of schools which have handicapped students?

INTRODUCTION

This part of the report presents the results of a series of interviews with the principals from a sample of schools which have integrated handicapped children into regular classes. The primary purpose of the interviews was to elicit information about strengths and weaknesses of integration as it operates in the Calgary Board of Education.

Interviews began with a discussion of the meaning of the terms "handicapped student" and "integration." The interviewer then asked a series of questions about the educational and administrative backgrounds of the principals, the extent of integration in the schools, the effects of integration, and policy and resource considerations. The opinions of the principals are reported in the findings section of this report.

METHODS

Objectives. The Canadian Institute for Research was contracted by the Calgary Board of Education to undertake a study of various problems relating to the integration of handicapped children in regular schools. One of the problems reviewed concerned the effects of integration on handicapped children, their families, teachers and other students. Because principals in the sample schools work very closely with problems of integration on a day-to-day basis, it was felt that their opinions would represent an important knowledge base about integration.

This part of the study attempted to answer the following specific questions:

1. What is the educational and administrative backgrounds of principals in schools where integration has been attempted?

2. Is there agreement among the school principals about the definition of "handicapped student" and "integration?"

3. How does integration operate in the schools of the Calgary Board of Education on a day-to-day basis?

4. What are the beneficial and/or detrimental effects of integration?

5. What policy and resource considerations, with respect to integration, are important for establishing future directions?

Data Sources and Survey Design. Information in this part of the study came from a sample of 25 school principals. The sample was chosen in a manner which made the final result representative of those schools which had attempted integration with and without special class provision in the school. Also included in the sample were schools from all levels of the system containing students with a wide range of handicapping conditions in segregated/integrated settings. To collect the data, the study employed a descriptive survey design using a semi-structured interview technique.

The Instrument. An interview schedule was developed which was flexible enough to adapt to a wide range of respondents, yet structured enough to produce findings which could be compared directly across respondents. The schedule outlined the purpose of the study, the general composition of the respondent panel, the reason why participation was vital, and the study sponsor and contractor. The instrument was thoroughly pilot tested and revised before the interviews were begun.

The Sample. A purposive sampling design was employed to ensure that individuals experienced with the problems of administering schools that have integrated handicapped children into regular classes would be contacted. Knowledge based on experience running the day-to-day operations of integrated schools was the criterion used for selecting the sample.

The first stage in defining the population from which the sample would be drawn was to find those schools which contained a relatively large number of handicapped children who were being accommodated, with and without special class provision, right in the school. To find schools that contained a large number of handicapped children in regular classes where there were no special classes, a random sample of 31 (20%) schools was drawn from the total school population. This sample was stratified by type of school: elementary, junior and senior high. Both principals and teachers of the 31 schools were surveyed with questionnaires that revealed the selective concentration of handicapped children in the school population. The results of this survey produced a total of 11 schools which appeared to have relatively high concentrations of handicapped children in the school, but where there were no special class provision made. Of the eleven, seven were elementary schools, three were junior high schools, and one was a senior high school. The eleven schools identified in this manner were combined with those in the school system which were known to have handicapped children accommodated part-time in special classrooms. The sum was 51 schools. Included in this group were 34 elementary schools, 9 elementary-junior high schools, 6 junior high schools and two senior high schools.

A sample of 25 schools was randomly drawn from the group of 51 schools. Using information available from the survey mentioned above and from the Student Services Division, it was possible to select the sample using both type of school and type of handicap as stratifying variables. The final sample contained proportionate representation of special class and non-special class schools, elementary, junior-elementary, junior and senior high schools, and various types of handicapping conditions. Considerable modification had to be made in this design prior to implementation. CIR was denied access to ten of the sample schools and two principals refused to participate in the interviews. Random procedures were used to replace these schools, but originally intended proportional representation could not be maintained.

Table I

School Principal Interview Schedule

	Grade Level				
Type of School	Elementary	Junior/ Elementary	Junior	Senior	Totals
Special Class School	15	3	2	--	20
Non-Special Class School	5	--	1	1	7
TOTALS	20	3	3	1	27

Data Collection and Analysis Procedures. A total of 25 interviews were conducted. Principals of each of the sample schools were contacted by phone and asked to participate in the study. Interview appointments were scheduled, an itinerary established, and interviews conducted over a three-week period. The length of the interviews ranged from one to two hours. Immedidately following each interview the interviewer reworked notes to ensure the accuracy and completeness of each principal's responses. Data were analysed largely through a non-statistical reviewing, sorting and combining of interviewee opinions. Answers to questions were studied. Responses were coded and combined into groups and the general tenor of the information was summarized. To clarify or amplify the summaries, a few typical quotations have been included, which are intended to add reality to the report of the findings and to convey the general "flavour" of the opinions expressed by the majority.

Reporting Format. The section which follows presents the findings from the interviews. The results are organized under major headings as follows:

1. Background Information
2. Definition of the Student Population
3. Nature and Extent of Integration
4. The Effects of Integration
5. Facilitators and Barriers to Successful Integration
6. Resources Necessary for Successful Integration
7. Calgary Board of Education Policy with Respect to Integration
8. Current Practice of the Calgary Board of Education with Respect to the Education of the Handicapped
9. Quality of Service Provided to the Integrated Schools
10. Summary

PRESENTATION OF THE FINDINGS

The questionnaire explored the degree to which handicapped students have been integrated in the schools, the ways in which this has been accomplished and the attitudes of principals about integration. Specific questions dealt with background information on the school principal, definitions of the student population, the extent of integration, the effects of integration, and matters pertaining to policy, resources and future directions.

Background Information

Education and Experience of School Principals. The majority (80%) of principals surveyed had ten or more years administrative experience. Their term as school administrators averaged thirteen years and ranged from one to twenty-five. The majority had served as principal of their present school for only one or two years. There were notable exceptions, however, as it was found in two cases that principals had served in their schools for eleven and sixteen years respectively. It was generally found (92%) that school principals possessed no special training in the field of special education. They usually reported backgrounds in history and physical education, psychology, sociology, and other academic areas. Occasional mention (12%) was made of enrollment in in-service courses or night school courses in special education. Generally speaking however, almost no special training was reported. The majority (60%) stated, nevertheless, that they had picked up considerable knowledge about the problems associated with educating the handicapped during their careers. This knowledge stemmed from working with and observing teachers as well as direct, first-hand experience teaching regular classes containing handicapped children. With only one or two exceptions, they all reported having taught handicapped students in the regular classroom. The majority (72%) stated that they had had direct classroom experience in working with two to five of these children a year.

Definition of Student Population

Definition of Handicapped Student. At the beginning of each interview, school principals were asked to read and comment on definitions that would help clarify the type of student population being studied. The following definition of "handicapped student" was presented for their consideration:

> *A handicapped student is one who deviates from the average or normal child in a mental, physical or social way to the extent that he or she requires a modification in regular school practices in order to develop to his or her maximum capacity.*

It was almost unanimously agreed (92%) that this definition would encompass the full range of those students normally termed handicapped. Many (20%) principals admitted that the term "handicapped student" was usually not perceived in the broad sense implied by this definition. There was general agreement, however, that this definition represented a good operational definition because it made provision for the more subtle types of handicapped students as well as the obvious. Several reported (12%) that, in their opinion, not enough attention had been devoted in the past to the more subtle, less obvious handicapped students.

Definition of Integration. There was not wide acceptance (20%) for the following definition of integration:

> *Integration refers to the education of handicapped students in regular schools of the Calgary Board of Education.*

There was widespread concern (64%) about the term "regular schools." In the opinion of many principals, a preferred form of the definition would replace "schools" by "classes." The following comment was very common:

> *I am tempted to say regular classes instead of schools. The definition might imply that you can have handicapped children in regular schools, but possibly totally segregated. To me, this isn't integration at all. If integration is to occur, students should be moved from special classes to regular classes for part of the day.*

A second concern expressed a number of times (16%) pertained to the meaning of the term "regular." It was generally felt (60%) that integration was not possible if class size exceeded 20 to 25 students. Furthermore, other variables such as the attitude and capabilities of the teacher as well as the student composition of the "regular class" had to be considered. It was acknowledged (60%) that guidelines were needed to help define the types of "regular" classroom environments where integration can occur successfully.

Classification of Handicapped Students in the Sample Schools. School principals were asked to classify handicapped students in their schools as special class students and non-special class students. Special class students were more severely handicapped and were taught for the largest portion of the school day by a teacher with special education qualifications. Non-special class students were considered to be those who were handicapped, usually less severely, but either by reason of staff and room restrictions or degree of handicap, had to be taught exclusively in the regular class setting.

Non-Special Class Students (Predominantly Mildly Handicapped). There was general agreement (80%) among principals that more needs to be done for the mildly handicapped student. With increasing numbers of children experiencing problems in school, together with greater variance in individual student abilities, it is becoming increasingly difficult to provide adequate special assistance in the regular classroom. Mildly handicapped students, according to principals, generally demonstrate the same kinds of difficulties as special class youngsters except to a lesser degree. Principals mentioned (40%) that some students require the services available in special classes, but are not there due to restrictions of physical space or staff. Some principals (12%) reported that frequently mildly handicapped children fall into a gray area where mentally they are not high enough for LAC placement, yet not low enough to gain entrance into a special classroom. Besides intellectual handicaps, principals reported a wide range of other handicapping conditions among the non-special class students. Cultural deprivation, language deficits, hearing impaired, cerebral palsy, vision problems, congenital health problems, learning problems stemming from diabetes and asthma, social deviants, emotional difficulties, and hyperactive were all terms that were used. Also among the non-special class students is another group of handicapped children that are of great concern to the principals (72%). There is a growing number of students who require modifications in school practices due to deficits in reading, arithmetic, and spelling. There is concern among principals about the increasing numbers of students in the schools that are falling behind in the basic skill areas. Such students usually have average or better ability, but for some reason are falling behind. Principals (4%) say that it is difficult to pinpoint the specific problem as visual, auditory or other conventional causal factors. Some feel (20%) that environmental factors such as television, broken homes, and rapid change are important contributors to the problem. Principals generally (80%) felt that more has to be done to modify regular programs to accommodate the increasing number of children with various kinds of special needs. They feel that the non-special class handicapped student is being overlooked.

Special Class Students (Predominantly Moderately Handicapped). The principals' descriptions of special class students was similar to the non-special class group except for the predominance of classical special education categories. It appeared generally that special class students are more severely handicapped than non-special class students and that the majority of the classes contain the educable mentally handicapped, learning disabled and emotionally handicapped.

Principals used various terms to describe special class settings including: resource room, home room, adaptation class, transitional classroom, and special class. Generally, principals seemed to regard any room set aside for specific instructional activities as a "special class." The use of this term by principals was not restricted exclusively to those rooms staffed by special education teachers.

Enrollments in special classrooms varied from 8 to 12. Principals generally (60%) reported that 12 was considered maximum for such special class situations. Students accommodated in such rooms were regarded as "moderately handicapped." In other types of special class settings such as resource rooms, class size was usually higher ranging from 15 to about 20. Students in these situations were seen as the mildly handicapped.

Estimated Number of Moderately and Mildly Handicapped Children In The Schools. School principals were asked to estimate the number of children in their schools which might be termed "handicapped." Conservative estimates for the number of moderately handicapped were "one or two per class" and for the mildly handicapped, about ten per cent of the student population. In one school a principal reported that fifteen to twenty per cent of his student population could be termed moderately or mildly handicapped with an additional five to ten per cent being the "victims of bad teaching." In another school, a junior high, the principal estimated that 30% of his student population were handicapped to the extent where a modified school program was needed.

Should Handicapped Children be Accommodated in the Regular Schools?

Principals were asked to comment on the following definitions:

> *Mild Handicapping Conditions: are ones that enable students to work well in regular classes full-time without special assistance or with occasional, limited supportive services and supplementary instructional assistance.*
>
> *Moderate Handicapping Conditions: are those that usually require students to participate less than full-time in regular classes because they need the assistance available in special classes, resource rooms, or instructional stations part-time or full-time.*
>
> *Severe Handicapping Conditions: are ones that usually require full-time and extensive special assistance in home, hospital, residential, or other total care setting.*

There was general agreement among principals (80%) that these definitions would be a reasonable way of operationally defining three levels of integration/segregation. Based on these definitions there was widespread support (92%) for accommodating the mildly handicapped children in regular schools. In taking this position the principals were adamant in their expression of provisos. Mildly handicapped can be kept in the regular classroom for the greater portion of a school day provided teacher/pupil ratio be kept low. The majority (80%) of the principals felt that class size should be maintained at 25 or less. In addition, special class provision must be available for those who can benefit from periods of individual instruction in a low pupil/teacher ratio setting. The services of the Learning Assistance Centre should be more readily available than they are at present. There is also need for other support services to the regular teacher including teacher aides, consultation with master teachers and high interest, low vocabulary learning materials.

Principals (80%) supported the inclusion of the moderately handicapped in regular schools, but once again their support for this was dependent upon the continuance of special education teachers and special class provision in the schools. Without such provision there was very little support (12%) for accepting the moderately handicapped in regular schools. The following comments are representative of the view of the principals:

> *I am aware that the Board intends to do away with special classes. I am totally against that, it would be bad for everyone -- a real retrograde step.*

There was not widespread support (16%) for accommodating the severely handicapped in regular schools. Some principals stated that if the Board provided "total care settings" in the regular schools there would be no reason why the severely handicapped children could not be accepted into regular schools. It was felt that it was inadvisable economically to provide such total care settings in all of the schools in Calgary. It was pointed out by some that segregation in a total care setting in a regular school is not integration in any event.

> *The severely handicapped should remain in the special schools of the Calgary Board of Education.*
>
> *Simply physically mixing the handicapped children with regular children does not assure that integration will take place. Unless social interaction occurs between handicapped and normal children, they will not be integrated.*
>
> *Not all handicapped children should be accepted in schools. The schools are not set up for everyone. There are places for the more severe. Of course, if you made provision for the severely handicapped children in regular schools, there would be no reason why they couldn't attend there as well. But what would be the point if they are segregated completely -- and they would have to be.*

Concluding Comment. While principals want to exclude the severely handicapped and include the moderately and the mildly handicapped in regular schools, they caution that these are broad terms and global descriptions and that in the final analysis whether or not a student is accepted into the schools depends upon his individual needs, the attitudes and abilities of the teachers, the attitude of the parents, and the staff and facilities of the school. Ultimately, decisions about integration should be made on an individual basis.

Nature and Extent of Integration

Organizing Special Class Handicapped Children and Regular Class Children For Instruction. Special class students and regular students are organized in a variety of ways throughout the schools surveyed. It was found that special class students remain in their home rooms for those subjects and activities where they cannot benefit from integration. The educable mentally handicapped, learning disabled and emotional handicapped students, for example, are usually not integrated in academic subjects such as reading, arithmetic and spelling. While this was the general trend observed, there were exceptions. A few principals reported that some special class students can benefit from integration into the academic subject areas and in such cases this was permitted and encouraged. At one school a "pseudo-academic" class is being planned for moderately handicapped students in social studies and science. This class will be implemented next year and will consist of regular students mixed with selected special class students. A modified approach will be used that will depend mostly on oral intake and verbal output. The course will be designed in such a way so as to limit the need for written language skills.

While integration in the academic subject areas appears to be done selectively and is not widespread, this does not appear to be the case in the non-academic subject areas and in non-instructional school activities. In almost all of the schools surveyed it was found that the special class students are integrated in subjects such as physical education, music and art. In only a few instances, where the nature of a particular handicap prevented a child from coping with these activities, did integration not occur.

As far as the non-instructional areas are concerned, it was found that there is almost complete integration. Handicapped students are completely integrated for concerts, field trips, assemblies and recess in most schools (92%). Only in a few instances did any forms of segregation occur. At two schools a special area of the playground has been set aside for special class students. A few principals reported that the handicapped students tend to segregate themselves on the playground simply because of the fact that they like to remain with their peers. Occasional mention was made of the need to exclude handicapped children on overnight field trips. In such instances, this was usually due to the parents' request or because of the nature of a particular problem that prevented the child from caring for himself overnight. It was pointed out by a few (12%) school principals that special class students frequently have their own activities planned for them. It appears that usually special class children are placed in those settings where they can succeed. Sometimes, this is the regular class setting and sometimes it is not. The most common practice is to integrate students into situations where they can benefit socially by interacting with non-handicapped children.

> *You should never place a special class youngster into classrooms where they have difficulty coping. If you place him in a situation where he can succeed, you will not find him disrupting the regular class.*

> *When handicapped students first arrive in the school, they are retained almost exclusively in their own room -- the attitude is they are in the rooms and we are in the school. As time goes on they are selectively integrated into the non-instructional areas. Eventually, in some instances they are integrated into the academic areas too.*

Handicapped children are encouraged to be both participants and spectators in school concerts. When field trips are planned that handicapped students cannot attend, frequently little field trips of their own are planned. Overall, the level of integration depends upon their ability to cope in regular settings.

Organizing Non-Special Class Handicapped Children and Regular Children For Instruction. It was found that for the most part, non-special class handicapped students are treated just like regular class students. Some slight modifications occur such as lowering expectations, gearing material down to a lower level, regrouping for special instruction, more frequent individual attention, assistance by teacher aides and parent volunteers and occasional visits to the Learning Assistance Centre. It was found that the schools make very few extraordinary provisions for non-special class handicapped children. Such children are usually treated like regular class children, with some special attention being given to the extent that teacher time and resources permit.

Types of Activities from which Handicapped Children are Excluded. No general pattern was evident with respect to the types of activities from which special class students are excluded. Decisions regarding exclusion appear to be made on a highly individual basis. As far as the non-special class children are concerned, there appears to be no attempt to exclude them from any regular school activities.

Approaches to Integration That Have Not Worked. Very few principals reported that they had tried approaches to integration which had to be discontinued. The most general response was that the feasibility of approaches is usually considered in advance during planning stages and undesirable approaches are discarded before attempting them. Principals reported that a child occasionally might have to be removed from a class because he is disruptive or because the child himself is unable to handle regular class placement. Principals advised that integration must be entered into very, very slowly. Generally, those reporting successes felt that they had not experienced any ineffective procedures because of the way they had handled it in their schools.

In spite of this general trend there were some exceptions. One principal reported that he had progressed a bit too ambitiously and had exhausted one teacher from overwork. Another stated that he was very enthusiastic about integration from successes in other schools, but had to pull back because of opposition from some of the teachers, and another principal reported that integration had to be discontinued because pupil/teacher ratios had been allowed to go too high. Finally, one principal reported a particularly bad experience when attempts were made to integrate children without a special class in the school.

In this person's opinion, his experience was definitely not the way to proceed if one wished to be successful. In this particular case, the staff tried taking a class of learning disabled children and integrating them fully into an open area setting with two teachers teaming up with a special education teacher. Class size in total, including the special class children reached forty-five. The regular class teachers found it very difficult to handle the special class children. They became extremely frustrated. To make matters worse, the regular students began modelling behaviour of the special class kids, and a melee of discipline problems resulted. To compound the problem, the teachers had different philosophical approaches. One was academically oriented, while the other one was more socially oriented. The principal reported that it was a very trying year.

Level of Satisfaction with Present Arrangements for Accommodating the Handicapped. Principals (48%) reported that they were satisfied with the way in which they were able to organize handicapped children and regular children in their schools. Specific items that they were pleased with included the provision of aides and volunteers to work with handicapped children; special class teachers; and special classrooms; supernumerary teachers and resource rooms; the cooperation from the staff; the gains shown in self-image; and the way the regular children accept the special class children.

Principals reported that they were dissatisfied with the following aspects: the high pupil/teacher ratio; the fact that volunteers cannot be relied upon; tours and field trips need adult supervision and this is not available; the apparent lack of sensitivity of the Board to the needs of the handicapped children in the system; the inadequacy of training of the staff to work with handicapped children; difficulties in timetabling in order to accommodate the handicapped; the difficulty in accommodating the handicapped children in after-school activities because of bussing; the shortage of staff, aides and clerical help; the shortage of supernumerary teachers and resource rooms to accommodate the less severely handicapped; the need for school counsellors in schools that integrate handicapped children; the fact that the special education teacher is expected to remain with the children from early morning until late in the afternoon without any release over lunch hour; the increased number of problems on the playground with the special education children in the yard; the inflexibility of the central office regarding noon-hour supervision by special education teachers; the implication that special education teachers be paid an allowance to supervise lunch hours rather than for extra qualifications; the lack of provision for clerical help and aides in schools that have handicapped children; the need for extra help in the shop; the lack of cooperation from the special education staff in central office.

The principals of schools that have special class teachers and classrooms are supportive of integration; however, this support is always qualified by stating that they are only in favour if the Board continues to provide special education teachers. Principals in schools that have high numbers of handicapped children, but no special classes do not support integration. These principals express great fear about the potential dangers of integration for the regular children in the school.

The Effects of Integration

Effects on the Community. With only a few exceptions (8%), principals reported that no reactions had been received from the community.

> *We have received no reactions either way.*
>
> *The community is supportive. We have received no comments either positive or negative.*

Some of the principals (12%) reported a few negative incidents, but these were not widespread. Some examples are as follows:

> *I have had to deal with several incidents concerning misbehaviour on the bus, on two occasions one of the boys indecently exposed himself and three times there were incidents of beating and fighting.*
>
> *The people at the shopping centre are concerned. I have had to deal with them as well as the police. Two or three kids have been picked up by the police for causing trouble at the store. I have also had to deal with problems resulting from misbehaviour on the bus. Yes, these were special class kids.*

Other principals noted specific positive comments but generally these were not frequent enough to conclude that the communities are either favourably or unfavourably disposed to integration in regular schools.

> *We have received positive comments from the parents of the special education children. No reactions have been received from the parents of the regular kids.*
>
> *Generally, the reaction has been positive, the parents of the handicapped children are reticent at first. We have had no reactions at all from parents of the regular children.*

Effects on the Administration. While principals generally supported integration in principle, there are a few operating problems that are of concern to some of them.

1. Four report a drain on time and energy, although the results might be worth the effort:

> *It is an extra hassle but it is worth it. It's like the extra trouble you go to to prepare a really good Sunday dinner, it is more hassle, but the results are gratifying.*

2. Thirteen reported that they were frustrated because of the apparent lack of direction and purpose and failure to get cooperation from the Special Education Department:

> *I find that I am experiencing no beneficial or detrimental effects. I would say that I have felt frustration however, in attempting to implement an integration program without any direction or purpose.*
>
> *I am building up strong prejudices against a special education department for their lack of communication and support.*

3. Three said that few problems result if children are properly placed:

> *Provided handicapped kids are properly placed in the schools and the classrooms there are really no noticeable effects.*

4. Three complained that integration causes extra work, but the Board does not recognize this:

> *We get no credit for administering these classes, yet they are as much or more work than the regular ones. I have four special classes in my school for which I do not get credit on the grid -- these are just "add-ons." Actually, the special classes should count for more than the regular ones. The Board should at least put them on the same basis as the other ones. If they are going to continue with this, they had better start counting them on the grid.*

5. Eleven mentioned the need for counselling in the integrated schools:

> *On the one hand I am expected to be a counsellor and on the other hand an administrator. It really takes a lot of extra principal time. There is a need for counsellors in the elementary schools. The visiting teacher is already overworked. The school does not have the means to deal with the special classes.*

6. Two stated that there were now fewer problems because of extra staff:

> *Perhaps the fact that I have these kids in my school and as a result have extra staff, I really end up with fewer problems.*

7. Ten reported that class size was too large to adequately cope with the needs of the mildly handicapped:

> *There are dozens of children needing extra help in the basic skills areas. With class size over thirty, how much individual attention can you give them?*

Effects On Teachers. Principals report that teachers accepted integration without too many complaints. In fact, one factor that they see contributing to the success of integration is the sympathetic support of the teachers.

1. Twelve reported no evidence of beneficial or detrimental effects:

> *It's good for teachers if they don't neglect the regular students. I don't think there are either beneficial or detrimental effects. Again proper placement precludes the detrimental effects.*

2. Fifteen said that teachers were generally supportive:

> *Teachers have been tolerant and understanding.*
>
> *Teachers get a gratifying feeling when everyone participates in activities. Teachers are pleased because by integration of students they feel that they have accomplished something.*

3. Thirteen wanted more resource support:

> *They could do a better job if they had more resource room support. Again I would say that we could not accommodate the severely handicapped.*

Effects on Regular Students. The opinions of principals vary markedly concerning the existence of evidence to the effect that the academic progress of non-handicapped children had suffered due to the presence of handicapped children.

> *Yes, I think so. The teachers have to spend an awful lot of time with the special class kids. They take teacher's time, not only in the sense of detracting from individual instructional assistance for regular kids, but also in terms of preparation. There are also more discipline problems.*
>
> *We would not allow this to happen. We wouldn't integrate in this school unless the conditions were right for it.*

The majority of principals reported that regular students do not appear to suffer from the integration of handicapped students provided it is handled properly.

> *It's generally good for other children. All have problems these are this child's problem. That is how I explain it to the children.*
>
> *I can't really pinpoint any detrimental effects, but remember we do have severely handicapped in this school and we do have the extra staff to handle what we have.*

Effects on the Handicapped Children. The majority of principals reported that handicapped children seem to benefit a lot from integration especially in the social areas.

> *The social interaction is good. A child who is having difficulty sees that others are having difficulty too, and this contributes to normalization.*
>
> *Provided the children are permitted only into those activities where they can succeed, there has to be positive social benefits.*

Is Integration an Appropriate and Worthwhile Activity? School principals (75%) of the special class schools feel that integration of the handicapped to the level accomplished in their schools is a worthwhile and appropriate activity. While there was general agreement about this fact, principals expressed serious reservations about integration without making special provision in the regular schools for the handicapped. Principals were unanimous in their support for special class teachers and special classrooms. Without these services they say that integration could not be done successfully at all. There was a striking difference between the opinions of principals having special classrooms in their schools and those without them. Principals not having special classrooms, yet having a number of handicapped students in regular classes, expressed strong opposition to integration. The reason for this opposition mainly stems from their fear that the education of regular students would be placed in jeopardy.

While the principals of the special class schools generally supported integration with reservations, they did cite a number of types of handicaps that they would not allow into regular classroom settings. This is how they described children that should be excluded.

> *I don't think the extreme cases of hard of hearing should be allowed in because we do not have the capacity to deal with these children.*
>
> *The severely handicapped should be excluded. Extreme emotional or psychological deviation, the severely visually impaired (our school plan does not allow for it), those with severe speech deficits, gross physical deformity.*
>
> *It is difficult to mention specific types of handicapped children that should be excluded. I would say that you would exclude anyone who couldn't succeed in some way in the regular classes.*
>
> *There is only one real problem, those that are unstable emotionally.*
>
> *The emotionally disturbed. It's too much for everyone to have those kids in the school. Some severe types of physical handicaps (they couldn't master the stairs in this building), extreme cases of cerebral palsy, extremely mentally retarded.*
>
> *Those who are not personally independent with respect to mobility and toilet needs. Also those who have physical health handicaps that are controlled by medication. These kids do not work well in the classroom.*

There was not widespread agreement among the principals about whether or not the Calgary Board of Education should increase the amount of integration in the Calgary schools. Most claimed that they could not answer for the system as a whole.

> *I couldn't answer that for the system, what we are doing here in this school is good. The program is still evolving much more could be done.*

Certainly not without needs assessment and determination of goals. They should stop right now and work out a philosophy, a set of goals and ways of assessing accomplishments. Once this is done, then they can go ahead and increase it. It has gone far enough as it is now.

Yes, provided there is more special class teachers made available.

Facilitators and Barriers to Integration

Facilitators. On the basis of their experience, principals reported a number of factors that facilitate integration.

A staff that communicates well.

A super teacher. Those who really want to work with handicapped children. They should be mature, understanding and have patience.

A tremendous pool of knowledge has developed in the Calgary school system about integration over the past few years. There is a need for forums and workshop sessions on what works, why, and how it should be implemented.

Adequate staff.

Special class teachers.

Low class sizes.

Facilities that are not overcrowded.

Special classes.

Experience with integration in other schools.

Space for the classes.

Positive attitudes of teachers, both special and regular.

The awareness of the teacher to students having special needs.

Good teachers, someone who can handle special needs better than others.

Staff support

Low pupil/teacher ratio.

Sympathetic staff. They must be willing to spend more time and effort and to accept the fact that these children need more help, understanding and consideration.

The most important factor is the capabilities of the resource room teacher.

You must have a special room, extra materials and equipment.

You need sufficient number of students so that each child gets the same opportunity.

Timetabling so that social integration can occur.

The child must be able to achieve success in a subject area with children of their own age.

Physical proximity of the special class students with the other students.

Barriers. Principals cited a number of factors which in their opinion represent barriers to successful integration.

Moving into integration too quickly. You should go only as fast as you have the know-how to do it.

A central office where special education personnel want to control, rather than coordinate.

A special education crew downtown. As an administrator in a school, there appears to be too much talk down communication, but in my opinion they are not at the top. They are far too removed from where the action is. In my opinion, they do not have a clear picture of the student in an educational setting.

Trying to offer integrated courses without special classes.

An unsympathetic staff.

Unexperienced teachers.

Trying to offer integrated courses without special classes.

A physical plan that does not lend itself to integration.

Inadequate numbers of staff and aides.

Improper placement in regular classes.

Too big a range in learning capacity.

Crowded physical facilities.

The numbers game.

Resources Necessary for Successful Integration. Principals were asked to rate the importance of various types of resources necessary for integration. The list is presented below in the order of priority assigned.

In terms of the resources to implement integration successfully, principals have placed a high priority on staff. In their opinion adequate staff mean more than just providing for sufficient numbers. On more than one occasion, principals mentioned that integration will either succeed or fail depending upon the capabilities of the teacher, i.e., the special class teacher. They also stated that care must be chosen to select those teachers who can handle the moderately handicapped in regular classrooms. Not every teacher is capable of accepting these students. The attitude of the teacher is a very important variable.

In addition to the teacher, another important aspect of integration is the particular student makeup of the classroom. Some classes are more difficult to handle than others. Some teachers are more effective in working with the classes than other teachers are. Given ideal conditions (a model class), it was generally felt that not more than two special class students should be placed into regular classrooms.

Another important variable for successful integration is class size. The principals warned that special classes should not exceed ten handicapped students. In many instances, principals cautioned legislating specific enrollments for these classrooms. It was felt that the severity of the handicaps experienced by the children had to be taken into consideration. It was their feeling that sometimes classes of five students can be more difficult to handle than those of ten or twelve. Many principals recommended that the teacher be given an opportunity to place ceilings on the number of handicapped children in the special class.

A third important factor for effective integration is the provision of proper learning materials, textbooks, and audio-visual aides. It was felt by the principals that the Calgary Board of Education has adequately provided for the education of the handicapped in this regard. Many of the principals commented that special education teachers appear to be able to get anything that they ask for.

A fourth important resource for successful integration is in-service training. A number of principals mentioned that the Calgary Board of Education has provided excellent in-service training programs in other areas but that nothing had been attempted for integration programs. There was general consensus that this was a high need area, but fear was expressed that if in-service training programs are provided after school or on Saturdays when teachers would have to attend on their own time, that the programs would have little effect. Provided in-service training programs are made available during regular school time, principals support them and saw the need for them.

Many principals commented on the value of teacher aides for integrated programs. In terms of the work that teacher aides can do compared to their cost generally principals felt that aides were a very wise investment. Clerical and recordkeeping assistance was rated as having much lower priority than teacher aides. Usually principals commented that teacher aides could be used for clerical tasks.

Architectural and design modifications to the building were rated lowest, by the principals. Many felt that there were enough schools in this city that have the architectural and design characteristics to accommodate the handicapped and that such children should be bussed to these schools.

Calgary Board of Education Policy with Respect to Integration.

Little Evidence of Board Policy. The principals unanimously reported that they were unaware of a Board policy with respect to integration. They also reported that they were unaware of any plan for implementing integration in this school system, that to their knowledge there was no written statement of philosophy, no goals, and no defined curricular guidelines.

> *It should be in the policy handbook, but I'll bet (it) isn't. You will find something about special education classes in policy 3000-3, also in 3000-3.1. To my knowledge there is no statement of philosophy, goals, curriculum guides, policy manuals or procedures. Some of the correspondence from the central office appears to indicate that some efforts have started in the direction to developing these things. Guidance in these matters comes more in terms of working with the teacher.*

> *No, I am not aware of any policy at all. There might be a two cent statement of policy somewhere, but I'm sure it hasn't received much attention. The only guidance we have is our own professional judgement.*
>
> *Policies may not be formalized but, just in terms of common sense practices, there is adequate policy. For example, common sense tells you not to put children into special classes unless you really have to and there are some severe handicaps which cannot be integrated.*
>
> *No, not that I'm aware of. I have been trying to find out what the policy is and I have not seen anything. There is a lot of running around about total integration but I think that is as far as it goes. No, there is no policy that I am aware of. It is ridiculous to let this go on without having directions clearly defined.*
>
> *No, I've never heard about a policy, I have never seen a philosophy statement nor have I seen goals or a curriculum. There is just no plan for integration in this system. We are proceeding solely on the basis of our own personal judgement and discretion.*
>
> *If the Board had a clearly defined position on integration it hasn't been made known to us. I think that we should try it for a period of time, but that we should not go ahead without getting good evidence about whether it is effective or not. Do the long-term benefits of integration really justify the costs. And you have got to think about a lot more than just financial costs here.*

Need for Policy Guidelines. Principals (68%) felt that there was a need for better direction than they were currently getting, but advised strongly against establishing policies that would introduce rigidity into practices relating to integration. Because integration is such a highly individualistic concept they felt that there was a need for policies that would introduce flexibility into the system allowing for more decision-making at the school level.

> *It depends upon who has input into the establishing of policies. People at the central office don't know what is going on in the schools, they don't understand. If they developed the policies and they were inflicted on us, it would not work.*

Policies would be okay. Regulations would not.

There should be more provision for decision-making about children at the school level. The teachers should have more say. They should be able to say what is good and what is not good for children. They should be consulted about what class size is best for a particular mix of children. To say that special classes should not exceed twelve is ridiculous. It really depends on the makeup of the kids that are in the class.

There is a need for much more information about desirable practices in integration as well as general information too. We need help on how to evaluate the effects of integration at the school level. Are we achieving anything? Teachers have opinions about it, but is it really effective?

I like the current policy of the Board about special education teachers and classes. The problem is however, that there are restrictions on their availability. We have many children that need special attention who can't have it simply because there aren't enough teachers or classrooms.

There is general lack of direction, if there is a philosophy there is no agreement on what it should be. Each school has been left with developing its own curriculum. You are pretty well left to get along by trial and error. There appears to be little consistency concerning what should and should not be done in integration. For example, some say it should go beyond social integration, and some say it should not. There is no clearly defined curriculum -- each school has its own program and this has been developed by the teachers in the school basically on common sense. The central office people say that because of the diversity attempts should not be made to develop a specific curriculum. Well you can go along with that, but you must have guidelines, I am not aware of any guidelines at this time.

There is a definite need for better direction. Both regular teachers and special education teachers need more guidance. Some sort of guidance as to workable integration models. The special education division has never ever really made comments one way or the other.

> *We need models, but we shouldn't have massive documents, because who would read them? Some schools can cope, others can't. It really depends on the principals and teachers. It is difficult to set rules and guidelines.*
>
> *We would like to have a say in doing things. The Board does not trust the school staff as professionals. There is a need for more decision-making policies at the school level.*
>
> *The kind of integration that you implement depends upon the needs of individual children and the type and degree of their handicaps. What is done in integration has to be up to the school. There is a need for a framework for planning and implementing integration. This Board should take the initiative.*
>
> *I would like the Board to work out something similar to the guidelines provided by the Early Childhood Services Branch in Edmonton.*

Current Practice of the Calgary Board of Education with Respect to the Education of the Handicapped. A number of the principals (52%) mentioned that they felt that the Calgary Board of Education was a leader in North America with respect to the way in which it was handling the education of handicapped children. In their opinion, the system is doing a fairly good job of meeting the needs of the severely handicapped through the various special schools in the city. With the recent move to special classes, staffed by special education teachers, it was generally felt that a reasonably good job was being done of meeting the needs of the moderately handicapped in the regular schools. In terms of the structures that are currently in place and the potential delivery capability that these structures have for meeting the needs of handicapped children, the principals interviewed appeared to be quite supportive.

Quality of Service Provided to the Integrated Schools. There is great diversity in the opinions expressed by principals regarding the adequacy of the services provided by the Special Education Division. Eleven said they were extremely dissatisfied.

> *The special education division is very good, it seems to have limitless resources. The visiting teacher is excellent. They are all very dedicated people and when we want help, we can get it in almost no time. One thing that does concern me is that we have no say in placing students. We have no part of decisions about what handicapped kids come to this school.*

> *In my opinion they are seriously understaffed. The visiting teacher and psychologist have too many caseloads. The attendance officer cannot service adequately.*
>
> *There are not enough visiting psychologists. The testing department is understaffed. We have to wait up to five months for service. These people are really run ragged.*
>
> *A crisis situation did arise and then we finally got help instantly.*

Thirteen principals commented on the services of the visiting teachers. The type of service provided generally depends a great deal upon the person assigned to the area. Some say the service is of a high quality, however, generally principals questioned the effectiveness of the visiting teacher program, when the visiting teachers' services are available for only one half day per week.

> *We frequently have to wait for the services of the visiting teacher. Only when you declare an emergency do you get help.*

SUMMARY

Definition of Handicapped

1. Principals generally agreed with and accepted the study definition of handicapped students. They considered it a good operational definition since it made provision for the mildly handicapped student. Some commented that, interpreted broadly, the definition could include the gifted.

Definition of Integration

2. Principals did not generally agree with and accept the study definition of integration. They would prefer that it read "education of students in regular classes...". Most principals felt that integration has not been achieved merely by placing a special class in a regular school. Common learning activities must take place in a classroom or other setting as well.

Numbers of Handicapped Pupils

3. Principals tended to estimate that about "one or two per class" of the students are moderately handicapped, and about ten per cent of the students are mildly handicapped. The mildly handicapped

were said to suffer from a wide range of emotional/cultural/behavioural/learning problems. Principals indicate concern about the growing numbers of students who seem to be falling behind in academic subjects.

Nature and Extent of Integration

4. Principals report that special class students who can cope are almost always integrated for non-instructional activities such as concerts, assemblies and recess activity. Most schools integrate for physical/expressive subjects such as music, art and physical education. Integration for academic subjects is rare, but is practiced occasionally when it is apparent that both the regular student and handicapped student can benefit.

5. Handicapped students are often excluded from overnight field trips if the child's problem is such that he/she cannot care for himself/herself overnight.

6. Handicapped children who are not in special classes are generally treated just like the regular students. Modifications such as regrouping, lowering of expectations or more frequent individual assistance may be made.

7. Only four principals report trying approaches to integration which were ineffective and had to be discontinued. Principals state that specific integration practice has usually been considered carefully beforehand. Any activity with a high risk of failure is not attempted.

Effects on the Community

8. Most principals report no reaction from the community, either positive or negative, to the presence of handicapped students in their schools. There are reports of special class students causing more behaviour problems than the regular students, but such reports are relatively infrequent.

Effects on School Administration

9. The presence of special classes in a school creates demands on principals beyond those of a regular class. Demands result from problems either caused by or experienced by the special class students. Examples are fights on the playground, a student needing individual counselling, trouble on the school bus, case conferencing over placement decisions, etc.

Effects on Teachers

10. Principals of special class schools report that teachers seem generally supportive of the presence of handicapped students in their schools, provided resources adequate to the task are provided.

Effects on the Non-Handicapped Students

11. Principals observe that the presence of handicapped students does seem to produce increased understanding and acceptance on the part of the non-handicapped students.

12. Some principals report that the presence of handicapped students has caused no reduction in instruction time to the non-handicapped. Others report that there has been a decrease in attention paid to the regular students. Effects in this area vary from school to school.

Effects on Handicapped Students

13. Principals report that handicapped children often seem to enjoy social benefits from integration, and that self-concept is improved. However, they caution that a situation where failure is allowed is destructive. Careful consideration must be given to all aspects of placement so that failure is not allowed to occur.

Resources to Support Integration

14. Principals report that the key facilitators to successful integration are capable and willing teaching staff, and acceptable pupil/teacher ratio.

15. Barriers mentioned were inexperienced and unsympathetic teachers, attempting to integrate too quickly, and overcrowding.

16. Provision of appropriate learning materials, in-service training and teacher aide support were mentioned as important resources by principals. Architectural modification to buildings was generally rated as low priority.

Desired Levels of Integration

17. Principals generally support the integration of handicapped students with mild and moderate conditions, provided that appropriate resource supports were provided.

18. Principals generally do not support the integration of students with severe handicapping conditions. The severely emotionally disturbed, the severely physically handicapped and children who are not toilet-continent are better served in special schools.

19. Principals of regular schools with special classes are generally supportive of integration. Principals of regular schools which have handicapped children, but no special classes tend to be apprehensive about possible negative consequences.

20. Principals generally refused to comment on whether or not the total amount of integration in Calgary schools should be increased. They stated that they were not familiar with the activities of other schools, and that they could comment only on their own school. Some individuals stated that no attempt should be made to increase integration without determination of philosophy and goals. Others felt that determination of acceptable levels of integration revolves around provision of adequate resource support.

Opinions Concerning Current Services to the Handicapped

21. Principals unanimously report being unaware of a statement of Board policy with respect to integration. To their knowledge, there is no written plan for implementation, no written statement of philosophy and goals, and no curriculum guidelines.

22. Principals generally support the need for guidelines to give direction to integration activity.

23. Principals generally commend the services which the Board provides to handicapped students with severe conditions through the specialized institutions.

24. There is general support for the existence of special classes as a means of educating the moderately handicapped. A need is expressed for more special classes.

25. There is general agreement that the Board is not doing enough to meet the needs of the mildly handicapped. Students presently located in regular classes who have mild learning difficulties are not being adequately served.

26. Principals are not agreed on the quality of service provided by the Special Education resource personnel. Some principals are very satisfied, while others mention serious understaffing and an apparent lack of concern and communication from the central offices. There is a general concern that some special education services are spread so thinly to render them of doubtful value.

Report #6: REGULAR TEACHERS

A Report Derived From Interviews With
Regular Teachers Who Have Handicapped Children
Integrated Into Their Classes
On A Full or Part-Time Basis

Concerning: Extent of Integration
Impact of Integration
Resources Required to Support Integration

What do regular teachers who have taught handicapped children think of integration?

TABLE OF CONTENTS

Page

Introduction 6-3

Methods 6-3
  Rationale and Objectives 6-3
  Data Sources 6-4
  Survey Design 6-4
  The Instrument 6-4
  The Sample. 6-6
  Data Collection Procedures 6-6
  Data Analysis and Reporting Procedures 6-6
  Reporting Format 6-6

Presentation of the Findings 6-7
  Background of Regular Teachers 6-7
  Experience With Handicapped Children 6-8
  Effects on Handicapped Students 6-17
  Effects on Non-Handicapped Students 6-20
  Effects on the Teacher. 6-21
  Resources for Teaching the Handicapped 6-29
  Directions and Extent of Integration 6-31

Observations 6-36

LIST OF TABLES

Page

Table I: Number of Handicapped Students in Classrooms of Sampled Teachers 6-9

Table II: Nature of Handicap, in Classrooms of Sampled Teachers 6-10

Table III: Ratings of Effects of Regular Class Integration On Handicapped Students 6-19

Report #6: Regular Teachers

What do regular teachers
who have taught handicapped children
think of integration?

INTRODUCTION

This supporting report presents the results of 28 interviews with regular teachers who have handicapped children integrated into their classes on a full-time or part-time basis. The interviews ranged in duration from thirty minutes to two hours.

The findings reported here basically uncover regular teachers' perspectives and opinions with respect to the presence of handicapped children in regular classes. This section is organized into the following divisions: a. background of teacher; b. experience with handicapped children; c. effects on handicapped students; d. effects on non-handicapped children; e. resources for teaching the handicapped and; f. directions and extent of integration. Each section will end with a brief summary, recapitulating the findings in each area of concern.

METHODS

Rationale & Objectives. The question of increased integration is a particularly sensitive and critical one for regular teachers. These are the individuals who will be most affected by decisions regarding the integration of handicapped children into regular classes. These are the individuals who would carry out the task, and who are at present facing the challenge of teaching handicapped children, to some degree or another, within regular class settings.

By adopting an interview format which featured a number of relatively open questions, it was anticipated that the regular teachers interviewed would provide fairly detailed illustrations and reasons accompanying their viewpoints. In addition, the objective of the interviewing technique is to result in a depiction which reflects the real situation as closely as possible. Factual examples were solicited from respondents frequently throughout the process.

The schools in which these regular teachers teach were identified as having handicapped children through a previous instrument which was directed to principals, the "School Self-Study Form."

The specific purpose of the interviewing procedure with a sample of regular teachers was to record their viewpoints and to record descriptions of the current situations in which they teach handicapped students together with regular students. Emphasis was placed on effects -- on the handicapped students, the non-handicapped students, and on the teachers themselves.

Data Sources. Regular Teachers were selected randomly from schools indicated by principals as having handicapped pupils. Both elementary and junior high school regular teachers were visited.

Survey Design. A descriptive survey design was employed utilizing the personal semi-structured face-to-face interview technique as the means of data collection.

The Instrument. The interview schedule developed for interviewing regular teachers was designed to be flexible, through the use of semi-structured questions, in order to produce in-depth responses to questions pertaining to effects, in particular. The schedule outlined the purpose of the study, and proceeded to probe for responses concerning the background, experience, and viewpoints of the teacher who was given a copy of the schedule to read the questions as they were posed.

The semi-structured format, which made use of numerous open questions, was employed for several reasons: a. the population was wide in breadth; b. less time was taken using an interview format, in contrast with a written questionnaire format; c. the former process was considered to be less of a strain on the respondents; and d. the nature of the topic, in view of the difficulty of describing and assessing handicapping conditions and related effects, was amenable to a personal interview style.

The interview was piloted and revised so that ambiguous phrasing of questions was struck and clarity was enhanced where possible. The final draft of the interview schedule dealt with the following questions:

1. Background of teacher. How many years have you taught; at which level; what training do you have for working with handicapped students (reading, on-the-job experience was a possible selection); and have you ever taught special education classes?

2. Experience with handicapped children. What kinds of handicapped children do you presently have in your class; which are integrated on a full-time basis; which are integrated on a partial basis; where do they spend the rest of their school time; please describe the ways in which each of these students has his/her time and learning experiences organized in your classroom; why were you selected to teach handicapped students; are you familiar with the assessment, diagnosis and placement procedures used in the Calgary Board of Education; are these adequate; and please identify difficulties.

3. Effects on handicapped students. This section comprised a checklist which asked teachers to rate the regular class form of placement as being superior, effective, irrelevant, inferior, harmful for each of their handicapped pupils; for variables such as academic progress, work habits, etc.

4. Effects on non-handicapped students. Could you describe the attitudes which the non-handicapped students generally show towards the handicapped; have you noticed any positive, beneficial effects on the non-handicapped students resulting from the presence of handicapped students, any negative, detrimental effects; and, specifically, have the non-handicapped students been deprived of instruction attention or time in any way due to the presence of handicapped students in your class?

5. Effects on the teacher. How do you feel about teaching handicapped children; has it been a positive or negative experience, or is it no different from teaching any other children; has the presence of handicapped children in your classroom affected your teaching methods; the way in which you perform your teaching functions; do you find you are able to teach your handicapped pupils and your non-handicapped pupils adequately and without stress; has the presence of handicapped children in your classroom helped you to identify other children with mild handicaps or learning problems; has the number of referrals from your class changed as a result of having a handicapped child in your class; and, lastly, are there any other beneficial or detrimental effects that you have experienced as a direct result of teaching handicapped children in your classroom?

6. Resources for teaching the handicapped. Were you provided with any extraordinary types of resource supports; what were these; are there any other types that would have been useful; has the number of requests made by you for resource supports changed since you took handicapped children into your classroom?

7. Directions and Extent of Integration. The teachers were asked: in a very general sense, what are the factors which contribute to successful integration, and conversely, what factors create difficulties; with the level of resource support currently available to you, what is the maximum number of handicapped pupils which you could comfortably accommodate on a full-time basis; are there any types of handicapped pupils whom you could not or would not wish to teach within a regular classroom, please describe, and are there any whom you feel should not for their own sakes be taught in a regular classroom, please explain; do you think that the amount of integration in Calgary schools should be increased, why or why not; and finally, if the Calgary Board of Education decides to increase the level of integration within the regular school system, what are the most important considerations to take into account?

The Sample. From the total population of public schools, a stratified random sample of 31, or approximately 18% of the total was selected (see Report #4 for full reporting). Principals of these schools were asked to complete a "School Self-Study Form," indicating numbers of handicapped in their schools. Twenty-three of the thirty-one indicated that they had moderately or severely handicapped students among their pupils. To these 23 schools were added the names of schools in Calgary with special classes. From this final composite list a sample of 25 schools was selected at random. Regular teachers having handicapped pupils were randomly selected in each of the schools on the list.

Data Collection Procedures. The encounters with the regular teachers were set up as individual interviews, with the exception of one case, where two regular teachers were interviewed simultaneously because they formed a teaching team. Altogether, 28 interviews were conducted. The individuals interviewed as a team gave separate responses to each question, although both were present to collaborate or to provide information that the other had not provided. The interviews were carried out in the schools, either on a one-to-one basis in an isolated setting, such as an empty conference room, guidance room, or relatively empty staff room; or in the teacher's classroom when the students had been dismissed for the time. Covering arrangements were made for some of the teachers; others were interviewed during their lunch hour or after school.

As much as possible, direct quotes were recorded from the teachers. Some teachers would read the interviewer's written recording and make amendments, or additions as desired.

Data Analysis and Reporting Procedures. Following each interview or set of four or five interviews, the interviewer reworked notes or added supplementary information. Data were analysed through a non-statistical reviewing, sorting and combining of interviewee responses, which were coded and combined into groups so that the general tenor of the information could be summarized. A few quotations were selected to enhance some of the points that were made by the regular teachers, which are intended as well to convey the general tone of the data as expressed by the majority of teachers interviewed.

Reporting Format. The succeeding section will present and summarize the findings of this part of the study. The results are presented under the following major headings:

1. Background of the regular teachers. This will provide a general description of the population which was dealt with; the type of school in which they teach; their experience; and their current situation with respect to handicapped pupils in their classrooms.

2. Experience with handicapped children. Here the various experiences of regular teachers with handicapped pupils will be recorded.

3. Effects on handicapped students. The observed attitudes of both handicapped and non-handicapped students towards handicapped students will be presented in this section; as well as the teachers' viewpoints regarding this observed behaviour.

4. Effects on the non-handicapped students. The regular teachers' observations of effects that a handicapped child has on their regular, non-handicapped students are recorded. Direct quotes will be included as well.

5. Effects on the teacher. This section presents the regular teachers' responses to questions pertaining to the effects (whether positive, negative, or barely noticeable) that teaching handicapped children has had on them, their teaching methods, their outlook in general.

6. Resources for teaching the handicapped. This section will summarize the answers given to questions pertaining to the amount and type of resource support actually obtained, and the amount and type of resource support desired by the regular teachers.

7. Directions and extent of integration. This section will explore the responses given by regular teachers when asked general questions pertaining to the amount of integration that should or should not take place, with what qualifications, and the reasons they gave for their answers.

PRESENTATION OF THE FINDINGS

Background of the Regular Teachers. The first question regular teachers were asked was "For how many years have you taught in the public (or private) school system?" One teacher taught for 29 years, 3 taught from 20-25 years, 2 taught from 15-20 years, 3 taught for 10-15 years, 10 for 5-10 years, and 9 had 0-5 years' experience.

The teachers were next asked to identify at which level most of their teaching experience has been: 1 replied ECS, 12 replied Division I, 6 replied Division II, 5 replied Division III, 2 replied Division IV and 1 replied 'University.'

The third question, "What training do you have for working with handicapped students" showed the following frequencies: 4 replied that they had in-service training, workshops; 3 had some university courses, undergraduate. None indicated university major in special education, undergraduate. One had some university courses at the graduate level. None indicated a university major in Special Education, graduate. All respondents selected "knowledge gained through reading, talking and on-the-job experience."

The final question in this part of the interview schedule asked "Have you ever taught any Special Education classes? If so for what length of time?" The large majority of teachers replied "No." One teacher taught special education for three years, with one year of cerebral palsy, and two years severely retarded classes. One taught numerous remedial classes throughout his 29 years' experience. This year, one regular teacher with 20 years' experience, has, for the first time, a homogenous class of ten special education students in his seventh grade shop class. Two teachers taught several sessions of physical activity classes (e.g., swimming). One teacher was a non-school board teacher at Margaret House; another indicated having taught special education for 2 years.

Background of Regular Teachers -- Summary. Most of the teachers interviewed had under ten years of teaching experience. Of these, the majority had most of their teaching experience centred in Division I. Only seven teachers had had inservice training, workshops, or university courses; all replied that they gained their knowledge of handicapped students through on-the-job experience, reading, and talking. The large majority of teachers had never taught any special education classes.

Experience with Handicapped Children. The first question in this section of the interview schedule obtained precise information from teachers regarding their current class size. The question was phrased, *"How many children do you presently have in your classroom?"* The responses are presented in table form on the following page.

The next questions asked regular teachers to identify the type of handicap, the degree of handicap, for each pupil, which of these pupils, if any, are integrated into the classroom on a full-time basis, and which of these pupils, if any, are integrated into the classroom on a partial basis. The following definitions of mild, moderate and severe, as degrees of handicapping conditions, were used:

a. *Mild Handicapping Conditions: are ones that enable students to work well in regular classes full-time without special assistance or with occasional, limited supportive services and supplementary instructional assistance.*

b. *Moderate Handicapping Conditions: are those that usually require students to participate less than full-time in regular classes because they need the assistance available in special classes, resource rooms, or instructional stations part-time or full-time.*

Table I: Number of Handicapped Students in Classrooms of Sampled Teachers

Interview Schedule Number	Total* Number of Students in Classroom	Number of Handicapped Students included in Total*	Type of Class (where applicable)
1	20	4	Technical/vocational senior high
2	20	20	Remedial math, junior high
3	35	5	gym class, grade 6
4	15	1	reading
4	17	1	math
5	8	8	library
6	30	9	
7	10	10	shop, grade 7
8	24	3	
9	23	4	
10		3	
11	28	2	
12	34	34	slow learners' class
13, 14	66	11	team teaching, 3 members on team
15	12	4	
15	12	4	
16	35	1	
17	24	2	
18	30	3	
19	26	8	
20	50	8	total of 2 classes

Table I Continued

Interview Schedule Number	Total* Number of Students in Classroom	Number of Handicapped Students included in Total*	Type of Class (where applicable)
21	33	4	Grade 7
22	30	3	Grade 8
22	29	3	
23	30	5	
24	37	8	
25	60	11	total of 2 classes
26	26, 15, 29	1	
27		2	

c. *Severe Handicapping Conditions: are ones that usually require full-time and extensive special assistance in home, hospital, residential, or other total care settings.*

The following is a table of the responses to these questions:

Table II: Nature of Handicap,
in Classrooms of Sampled Teachers

Interview Number	Type of Handicap By pupil number	Degree of Handicap	Integrated into the classroom on full-time basis	Integrated into the classroom on partial basis
1	1, cerebral palsy 2, very hyperactive 3, language and culture 4, language and culture	moderate moderate moderate mild	all	none
2	1-20 slow learners	moderate	all	none
3	1-4 learning disabilities	mild	all	none

(Regular Teachers)

6-11

Interview Number	Type of Handicap By pupil number	Degree of Handicap	Integrated into the classroom on full-time basis	Integrated into the classroom on partial basis
4	1-9 learning disabilities 10 language	mild moderate	none	1-9 spend 45 mins. per day with specialist; (remedial reading); 10 goes to a second lang. teacher 1½ hrs. per day
5	1-8 learning disabilities	moderate	all (library)	special education
6	1 learning disability behavioural	moderate	none	Reading and math only; in junior special ed remainder
7	1 epilepsy 2 cerebral palsy 3-5 learning disabilities	moderate moderate mild	none	Most of the rest of the time is spent in the spec. ed class; some go to other classes for Math or Reading
8	1 emotional, social 2 social, behavioural 3 cerebral palsy	moderate moderate moderate	3	1, 2
9	1 use of one arm 2 speech impediment 3 speech impediment 4-10 slow learners	mild mild mild mild	all in shop only	are taught by special education teacher
10	1 learning 2 learning	moderate moderate	both	except for 1 hr. per day
11	1 learning disability 2 learning disability 3 learning disability	moderate moderate moderate	all	none

(Regular Teachers)

6-12

Interview Number	Type of Handicap By pupil number	Degree of Handicap	Integrated into the classroom on full-time basis	Integrated into the classroom on partial basis
12	1 emotional 2 learning disabled motor co-ordin. 3 learning dyslexic 4 learning disabled immature 5 learning disabled	moderate moderate moderate moderate moderate	1 and 2	3, 4 and 5
13	1 hyperactive, slow learner 2 amputee 3 slow learner, car accident	mild mild mild	all	none
14	1 emotional 2 hearing imp., low IQ 3 mentally handi. 4 low ability 5 low ability 6 low ability	moderate moderate moderate moderate mild mild	none	all
15	1 learning disabled 2 hearing impaired 3-8 slow learners and behavioural	moderate moderate moderate	all except	1 goes to LAC
16	1 cultural 2 cultural 3 visually impaired 4 hearing impaired 5 learning disabled 6 learning disabled 7, 8 mentally retard. 9,10 learning disabled 11 cultural	moderate moderate moderate moderate moderate moderate moderate moderate moderate	all	student may chose not to participate
17	1 learning disabled	moderate	no	yes, goes to LAC
18	1 hearing 2 emotional 3 brain damage 4-8 learning	moderate moderate	none	all 8 1, 3-8 not 2

(Regular Teachers)

6-13

Interview Number	Type of Handicap By pupil number	Degree of Handicap	Integrated into the classroom on full-time basis	Integrated into the classroom on partial basis
19	1-8 learning disabled	moderate	all except 1	1 on rotation
20	1-7 learning disabled	3,6 mild rest mod.	all	none
21	1 immature 2 v. hyperactive 3 deaf in one ear	moderate moderate moderate	all	none
22	1 learning disabled 2 learning disabled 3 learning disabled motor co-ordin. 4 learning disabled motor co-ordin. 5 learning disabled motor co-ordin. 6-8 learning disabled	mild moderate moderate moderate	all	none
23	1 low vision low social skills, behaviour	moderate	yes	no
24	1 learning disabled visual impaired 2 learning disabled	mild mild	none	Both for math rest of the day they spend in the learning disabilities class; one is integrated for gym; the other for social.
25	1 learning disabled low social interaction skills 2 learning disabled 3 difficult to describe problem[1]	moderate moderate moderate	none	all - all spend the other half of their time in the l. d. class.
26	1 learning disabled 2 low IQ, EMH 3 learning dis.-emo. 4 learning disabled 5 neurological 6 neurological 7 learning impaired 9 learning disabled 10, 11 learning disabled	moderate moderate moderate mild moderate mild moderate	all	none

---

[1] The teacher was quoted as saying, *"She's a little girl that has some kind of problem. She has a lot of trouble with the work we're doing. It's difficult to pinpoint the problem. For example, she hits herself in the class. She has gone through the DAT centre, she has gone to ACH. She repeats things all the time...she also has no friends."*

The next question (e), asked regular teachers to describe the ways in which each of these students has his/her time and learning experiences organized in their classroom. *(Does he/she do things in the same way as other children, or are special arrangements made? If so, please describe these special arrangements.)*

The majority of the teachers replied that they made no special arrangements, and that these students did exactly the same things as the others. One of these mentioned that the students needed a little more assistance, smaller projects, and more personal attention. Another mentioned that with 25 kids, the teacher didn't have the time to spend more time with them. Others were quoted as saying:

> *"I would be there constantly to supervise and guide."*
>
> *"I try not to frustrate him: I try to get him activities where he doesn't get frustrated -- he's an agressive boy."*
>
> *"Most of the time I endeavor to have them do the same kind of activity with some modification so they can do it. Some assignments they can do on their own, some situations they can't handle at all."*
>
> *"I had two parent volunteers who would take them for fifteen or twenty minutes to work on language stories ... I brought (#3) in closer, so that she could hear."*
>
> *"I don't expect as much ... they do the same thing, I just don't expect as much."*
>
> *"Sometimes they have the skill, then they participate, if not, they don't."*
>
> *"Special arrangements are made, such as special spelling lists, writing skills, extra time to complete assignments, math workbooks and sheets, homework books..."*
>
> *"(#3) does have a special desk made for her. I have a story corner bean bag chair for her. When she's going to the library she's late getting up the stairs. She doesn't generally go out for recess. In phys. ed. she's using her wheelchair. I do expect her to do the same amount of work, but if its not quite done or readable, I accept it because of her condition."*

The following question (f) read as follows: *"Why were you, in particular, selected to teach handicapped students? If there were choices made in the school, how were those choices made?"*. The majority of the responses indicated that there was no specific selection made. Representative comments included *"That's just the way it happened."*, *"I don't know, they were just in my class, I guess"*, and *"I wasn't."* When there was selection, this seemed to be based on two reasons, personality and willingness of the regular teacher for example:

> *"I've had good luck with the slow classes I've taught before."*
>
> *"...the luck of the draw. It was made on the basis of the particular personality."*
>
> *"I was the only one with a lot of experience and I was confident."*
>
> *"...because I was at the school; I had a good rapport with that type of child; I had two years' resource room experience, and therefore had special expertise; I wanted to work in that situation."*
>
> *"...because of my background and interest in slower students. We as a staff decided."*
>
> *"I indicated I would be willing to take them into my class."*
>
> *"I had them for a number of years ... it's harder for a newer teacher."*

and b. timetabling, and school-based decisions, for example:

> *"That was a timetabling choice."*
>
> *"I was the only Grade 3 teacher, which is the level he is working at."*
>
> *"I just happened to be the shop teacher and they thought it would be nice for them to take shop and so I just naturally fell into it."*
>
> *"I was chosen because they wanted them to interact with the Grade 7 small classes."*
>
> *"The visiting teacher asked me if I would take this child in the classroom"*.
>
> *"...The kids happened to be at the right age level."*

> *"Probably because I was in the area of art. They enjoy art -- it's nice for them to get a break."*
>
> *"I was selected because they wanted to integrate them in a non-academic option and to take some of the special ed. teacher's load."*
>
> *"Division II is on a timetable separate from Division I. They wanted the students integrated in non-academic subjects."*

The final question in this section asked, *"Would you say that you are familiar with the assessment, diagnosis and placement procedures used in the Calgary Board of Education?" (Yes or No).* Twelve teachers answered yes, fourteen answered no. The second part of the question read, *"Do you consider the procedures to be adequate? (Please identify any difficulties.)"* Those that answered yes, did not hesitate to reply to this second question. Here is a sample of replies:

> *"I wouldn't want to see it increase, but I don't think it's always right on. I see politics involved."*
>
> *"They're as adequate as the people you work with."*
>
> *"No. I find that there aren't enough openings, for example, in LAC for children. Many more children should be tested and appropriately placed than we're doing now. Its a difficult procedure with a lot of red tape to get a child assessed for the Children's Hospital."*
>
> *"No. In some other instances, students seem to be able to slip into the system; it takes us months and months of paper work and it's frustrating ... I think it's almost cruel to give them these tests. They break down into tears ... and we're (the particular school) always at the bottom of the scale. It's frustrating to do these Stanford Achievement Tests when we know we'll be at the bottom of the scale. It's also not fair to give it to New Canadians, which they ask us to do."*
>
> *"I disagree with the method used for report cards. There's not enough range. It's just black or white."*
>
> *"No. Not enough facilities, not enough resource people in the way of remedial reading and math, two of the big areas of concern."*
>
> *"...Inconsistency in communicating information personally and through records."*
>
> *"No. The visiting teacher has an overloaded caseload. In recommended placement after diagnosis there is a lack of a place to go, there is a waiting list for special classes ... "*

> *"They emphasize physical handicaps rather than mental handicaps."*
>
> *"Yes, I think so, I depend on the visiting teacher."*
>
> *"I find that there's not enough room. There are other children who need this help who don't qualify. We need more resource rooms."*

Experience with Handicapped Children -- Summary. Unless the teacher had a homogenous group, for example, ten special education students in a shop class out of a total of ten, nineteen had from 1 - 5 handicapped students in their regular class, and five had from 5 - 10 within the regular class. These regular class sizes ranged from 12 to 37.

When asked the type and degree of handicap that these special students had, the majority of the respondents answered "learning disability" - "moderate". Only a few teachers had children with physical impairments such as low vision, blindness, hearing impairments, cerebral palsy, and brain damaged children. Quite a few reported having special education students as those with language and cultural differences. A large number of these children identified had "low social skills".

When asked if they made special arrangements for the children, the majority replied "no", most mentioned lack of time as a reason. In addition, most had not been specifically selected to teach the handicapped students, that they were aware of. If reasons were given for the selection, these were "interest" and "timetabling". Half of the teachers interviewed were familiar with the diagnosis and placement procedures used by the Calgary Board of Education; half were not. Of the respondents that were familiar with the procedures, all except one, indicated that the procedures were not adequate, mentioning "red tape", and not enough openings for students as reasons.

Effects on Handicapped Students. This section of the interview schedule consisted of a checklist which measured the effectiveness of the regular class form of placement for each of the handicapped pupils that the teachers identified in the previous section. The checklist, entitled "Effects of Regular Class Integration on Handicapped Students", follows, showing aggregate totals in the appropriate columns.

The following rating categories were provided for the teacher's use in completing the Checklist:

Superior:	the regular class is a highly effective form of placement for this child.
Effective:	the regular class is a generally satisfactory form of placement.

Irrelevant: regular class placement is no better or no worse than any other.

Inferior: regular class placement is likely not as good as other forms of placement.

Harmful: regular class placement actually works to the detriment of this student.

I Don't Know: no basis for answer.

Additional comments received from the regular teachers included:

> *Regular class placement is inferior when thinking of mildly or severely retarded students.*
>
> *This is not particularly a* *regular* *Grade 1 classroom. I took all the difficulties.*
>
> *Pupil chose this class. He must like coming here, even though I think it's almost self-punishment.*
>
> *We have kept them in with a basic level.*
>
> *There are no choices. Either they get this course or not at all.*
>
> *...it didn't really hurt, but they may have made better progress elsewhere.*
>
> *Pupil is accepted because the other kids are afraid of him -- he's a bully.*
>
> *...regular setting is unrealistic because the work is too much of a challenge.*
>
> *A frustrating task because there is constant change in various situations in terms of how I am feeling, how the students are feeling ...I find it difficult to answer consistently.*

Effects on Handicapped Students -- Summary. As the composite checklist shows, the great majority of handicapped students were felt to be functioning effectively socially in a regular class placement, with the exception of specific academic areas, namely reading ability, writing ability, arithmetic, and academic progress in general. Language use, speech habits, classroom work habits, and social skills together with expressions of confidence and emotional behaviour were consistently rated as indicative of effective class placement in the regular classes.

(Regular Teachers)

Table III

Ratings of Effects of Regular Class Integration On Handicapped Students

	Superior	Effective	Irrelevant	Inferior	Harmful	Don't Know Or Not Applicable
Academic progress generally	5	19	6	7	1	17
Reading Ability	5	18	4	8	6	14
Writing Ability	5	15	8	12	1	14
Arithmetic	5	19	3	9	1	18
Ability to problem-solve	5	24	2	14	-	10
Language use, speech habits	6	31	3	8	-	8
Classroom work habits	8	23	1	10	-	13
General behavior (discipline) in classroom	9	24	2	11	1	8
General behavior outside classroom but in school environment	6	36	2	5	-	6
Expressions of self-confidence and self-respect	15	30	2	4	1	3
Emotional behavior; awareness of feelings and needs of self and others	6	33	3	4	3	6
Social acceptance from other handicapped students	17	24	4	2	-	8
Social acceptance from the non-handicapped students	16	33	-	-	2	4
Behavior and thinking leading to a realistic assessment of situations	7	35	4	7	1	1
Aesthetic enjoyment: responding to ideas and feelings in art, music, etc.	15	24	4	7	-	5
Attendance	8	34	3	3	-	7
Other						

N.B. - Number of students for whom rating was given - 55

Effects On Non-Handicapped Students. In this section, teachers were first asked the following question, *"Could you describe the attitudes which the non-handicapped students generally show towards the handicapped?"* ((a) teasing and taunting, and (b) protective caring, were both probed for by the interviewer).

Several teachers mentioned that there had been comments coming from the non-handicapped students, but that it didn't last long. Division I students appeared to be very accepting of handicapped students, with the exception of a particularly agressive or cruel child whom they would resent. On the whole the elementary school children were reported to show helpfulness. Two respondents concurred that Grade 7 students were quite helpful in general, as well. The observation that surfaced in almost all Division I teachers' responses was that if there was any teasing, it only lasted a short while, that there was helpfulness and protective caring shown by the non-handicapped students towards the handicapped, especially, in some classrooms, by the girls. As one respondent remarked:

> *"Up to Year 4 I think that the kids are especially good -- they're honest, helpful. I think when you get into Division II, that if anything is going to go wrong in some classes, in some kids, they're going to first blame the special education kids...sometimes it's true; sometimes it's an out."*

Other mentions of attitude which did not fit into the category of helpfulness, or protectiveness, came from a senior high school teacher who noted that *"nasty little remarks tend to come out stronger in Grade 10 non-matriculation students; compared with the Grade 12 matriculation students, there's a noticeable difference...in the way in which the kids are treated."*

The second question in this section asked, *"Have you noticed any positive, beneficial effects on the non-handicapped students, resulting from the presence of handicapped students?"* With the exception of three particular responses, each response contained one or more of the following terms to describe their observation: tolerance, empathy, awareness, acceptance, consideration, "learning to get along better". The three responses in particular which did not contain any of these indications were "no" answers.

The next two questions concerned negative, detrimental effects. These were, *"Have you noticed any negative, detrimental effects on the non-handicapped students, resulting from the presence of handicapped students?*, and *"Specifically have the non-handicapped students been deprived of instruction attention or time in any way due to the presence of handicapped students in your class?"* To the former question, 17 replied "No". To the latter question, 9 answered "No", directly, and 12 answered clear "Yes"'s. If the answer to the former question was "yes", the handicapped child in question generally tended to be an aggressive, emotionally disturbed, fitful, immature, or distracting child. This type of child was observed by the teacher to have an upsetting effect on the rest of the class; both the teacher and the class would be "on edge". A few of the teachers commented that a detrimental effect on the non-handicapped students was that

> *"it slows them down. When you've got a mixed class you gear yourself to the middle of the road...the good ones develop poor habits because they have to wait, especially when you're going over it the third time and so on."*

In general, more instruction attention or time was spent on the handicapped children because teachers indicated they would focus on them more than on the non-handicapped students, making sure that everything was going along all right.

Effects on the Non-Handicapped Students -- Summary. If there was any teasing or taunting reported by the teachers coming from non-handicapped students directed toward the handicapped students, it was always reported not to last for long. Division I students appeared to be very accepting of handicapped students, and helpful, unless the handicapped student in question was an aggressive, violent or cruel child. The non-handicapped students would then stay away, mostly out of fear. Teachers remarked a difference in attitude for Division II students, noting that the boys would tend to have comments for the first while that a handicapped student was in the class, that the girls would be helpful and protective; but that any teasing again did not last for long. Grade Seven students were reported to be quite helpful and accepting. Handicapped students were integrated into non-academic areas such as shop, art, and home economics. All teachers in these areas that were interviewed indicated the success that the handicapped students were experiencing in their classes.

When asked for positive, beneficial, effects on the non-handicapped resulting from the presence of handicapped students, each response (with the exception of three) contained one or more of the following terms to describe their observations: tolerance, empathy, awareness, acceptance, consideration; those that did not contain these observations were "no" answers. One half the teachers interviewed did not notice any negative, detrimental effects on the non-handicapped students resulting from the presence of handicapped students; the other half indicated that a detrimental effect was instruction time suffering due to the presence of handicapped children.

Effects on the Teacher: The question leading off this section of the interview schedule asked regular teachers the following: *"Generally speaking, how do you feel about teaching handicapped students? Has it been a positive experience, a negative experience, or is it no different from teaching any other children? Please explain the reasons for your answer."*

Sixteen respondents answered that it had been a positive experience for them. Some of the answers and reasons follow:

> *"...because of the slightest gain, there is a feeling of reward. Also being aware that the child shows pleasure at the slightest achievement and reward. A star means everything."*
>
> *"I really think it's been positive. It makes me sit back and look at these children -- we want them to succeed...I've learned a lot from it...I've learned a lot about myself!"*
>
> *"...they get excited when they experience success..."*
>
> *"I like teaching them; they're not that handicapped -- it depends on your attitude. Maybe it's easier to teach as skill."*
>
> *"...was a lot more positive than negative. If each teacher spent a week at Christine Meikle we'd see that we basically have disciplinary problems."*
>
> *"It's opened my eyes to the kind of kids that are out there. I do feel guilty at times because I spend more time with the handicapped kids, when my teaching assignment is for the regular classroom."*
>
> *"...you don't have the hassle with them that you do with regular students. They take a little more pride in their work."*
>
> *"I feel positive about the experience because that's where I feel my abilities lie."*
>
> *"I enjoy working with the class in the capacity that I do."*
>
> *"...you do have to compensate. Don't embarass him by asking him to do something he'd have a lot of difficulty with. The (handicapped) kids were relieved to have little or no pressure on them. They were happy with being in the class."*
>
> *"...when they do well, they're really happy about it and it encourages the teacher. You see more positive results sooner than you would in some of the others."*

Nine respondents indicated it had been a negative experience:

> *"It's been negative because it's more patience demanding; it's stressful, there's not an awful lot of progress shown. Other staff members sometimes don't appreciate*

> *the extra demands and I'd have to say yes, it is different from teaching any other children. Time demands are greater both in extra instruction and dealing with parents.*
>
> *...very trying ...*
>
> *...exhausting, short-changing normal students.*
>
> *Next year I'll request they not be in my class. Every third year I'll take my turn.*
>
> *I don't mind it if I had a nice little class of 15 to 20 -- to feel that you're giving enough time to the other children as well. With large classes it makes you feel that you're not coping with them and you're not being fair to the others.*
>
> *It's more draining ...*
>
> *I've learned a few things, but I've found it frustrating.*
>
> *If I had my choice I wouldn't have them. But it's done on a need basis. I wouldn't keep them if I didn't feel I could help them.*
>
> *It's always easier not to have handicapped kids. Most teachers see it as a necessary part of our duty. It's rare to ask for a handicapped student ...*

The non-committal answers, or those indicating that teaching handicapped students was not very different from teaching any other children included the following:

> *I've treated these kids as normal kids.*
>
> *I've had much more difficult students that this (#4) is.*

The second question in this section asked teachers *"Has the presence of handicapped children in your classroom affected your teaching methods and/or organization in any way? If so, please describe how."* Nineteen teachers answered "yes" or "to some extent", seven teachers replied "no". Those that answered "yes" included the following remarks:

> *We become more aware of their limitations.*
>
> *I don't expect the same of them.*
>
> *My program has been worked on for several years, I'm gearing it toward low learning ability.*

> *"I will offer extra help at noon."*
>
> *"I tend to repeat more for them. It does make me more organized for them."*
>
> *"Often I'll have to get him to pay attention to the instruction."*
>
> *"You have to make some extras. You have to remember -- to make sure they're there."*
>
> *"They work more slowly; they require a lot of help."*
>
> *"Curriculum is modified."*
>
> *"It has quite an effect. In ordinary classes I permit free grouping, where I know some of the kids would be isolated, I don't. Organization within the school becomes a super problem. English is on the top floor; kids are always late. The physical structure of the building causes trouble."*

The next question asked, *"Has the presence of handicapped students in your class made any difference to the way in which you perform your teaching functions?"* The following is a list of relevant points which teachers looked at and commented on:

a. planning time;
b. time for marking written work;
c. use of materials;
d. use of other equipment;
e. disciplinary measures employed;
f. amount of individual instruction provided to regular students;
g. need for extensive modifications in curricular content;
h. need to rearrange classroom furnishings;
i. other.

Seventeen teachers replied "yes" to the majority of the points from a. to h. The need to rearrange classroom furnishings was usually absent among these responses. For seven teachers, the presence of handicapped students in their class made no major differences with respect to the above points. For those who did point out differences, some of the major remarks were:

> *"I go to a little more trouble to get illustrations, models."*
>
> *"On the average the special education kids were a little less mature. I was a little more patient with them."*

> *"More time is spent planning because children are unable to work independently. ...Regular students do not receive as much individual instruction as they would if there were no handicapped students. ...A great deal of modification in curricular content has been necessary."*

> *"With (#3)...we have a moveable platform, a moving chair, pillow, and carpet."*

> *"(#2) is very destructive. You have to be very careful what you have out. I've rearranged his desk five million times."*

> *"Yes...because, for example, today we're having an interview. After school we spend time with the visiting psychologist, we spend more time on the phone. It's paramount that people have the time to spend with the handicapped students."*

> *"Without an in-school planning program I think most integration programs would be ineffective. You couldn't have a 30-kid class with four handicapped kids and no planning time. Because we have effective planning time, everything else falls into place-in that way we're sort of an idealistic setting."*

The next two questions dealt with teacher stress. These were *"Do you find that you are able to teach your handicapped pupils adequately and without stress? (Are the teaching methods adequate, is there enough time, etc.)"* and *"Do you find that you are able to teach your non-handicapped pupils adequately and without stress, with a handicapped child in your class? (Please comment.)"* Twenty teachers answered "yes" to both questions, and gave reasons, or qualifications, accompanying their affirmative answer. Twelve teachers replied "no", giving their reasons, and two teachers said both "yes" and "no". Some of the affirmative answers included comments such as:

> *"Teaching methods are adequate but could be improved."*

> *"Given the initial instructions they'll wait quietly but they can't stay with the task as long as the others... a little more stressful."*

> *"Not enough time...but I did not find it stressful. I was concerned but I never felt like giving up. I felt all were able."*

> *"I don't see anything different. When they do have particular problems they're handled by the special ed teacher in her own time or home room class."*

> *"Without the special provisions it would be stressful. ...I think we have a low-stress environment for both kids and teachers...because it's shared; it's a team. If you like your team, there's no stress. Our kids - both handicapped and non-handicapped are super happy and relaxed."*
>
> *"If I weren't getting outside help, there wouldn't be enough time."*
>
> *"My first year it took a lot out of me."*
>
> *"Yes. This was due to the selection of the children by the special ed teacher. She didn't select anyone whom she felt would not fit in and the special ed teacher seemed very concerned at first of how the kids were working out -- sort of hoping that her kids weren't causing extra problems or work."*
>
> *"We don't meet our handicapped people every day."*

Responses that indicated that teaching handicapped pupils was not without stress included:

> *"I wish I had smaller classes. It's discouraging for them to have to wait."*
>
> *"Repetitiveness is where I get stress with them. When (#3) was in the class it was stressful because he was tantruming."*
>
> *"I don't have any training in special ed other than discussing with special ed teachers. I would question why I wasn't chosen on the basis of university courses. At least give me an in-service..."*
>
> *"My stress is bound to spill over to my non-handicapped pupils."*
>
> *"I don't think there's enough time."*
>
> *"I get bugged by my failure. In English, there are certain things a kid has to learn."*

The following question asked whether the presence of handicapped children in the classroom helped the teacher in any way to identify other children with mild handicaps or learning problems, and to find ways to teach these children. Thirteen teachers answered in the affirmative and 12 teachers answered "no". Those who answered "yes" basically related this to an increased awareness resulting from the presence of a handicapped child in the classroom.

The interview schedule also posed the following question, *"Has the number of referrals from your classroom changed as a result of having handicapped children in your classroom?* These included:

a. referrals for disciplinary reasons;
b. referrals for counselling;
c. referrals for special instruction;
d. Others

Six teachers replied "yes" and fifteen teachers replied "no". The following are some of the comments included in the "no" replies:

> *"Why refer them if they won't be seen for months and months?"*
>
> *"They contribute a greal deal to the classroom."*
>
> *"I don't think it changes the situation at all; mine hasn't changed."*
>
> *"I wasn't aware of the things you could refer at first. I can always ask the visiting teacher."*
>
> *"If you had a type of student who needed help you'd have no place to send them."*
>
> *"The referral service at senior high level is bad. You can't get speech therapy. We can refer to our own counselling services. Our ability to refer is extremely limited. Psychological counselling/testing stops at the elementary level. Our counselling services are career oriented. The school board has tended to lump everything in counselling without regard..."*

Those who answered "yes", referred for the following reasons:

> *"I sent one child to L.A.C."*
>
> *"Yes -- I don't know whether it was an effect of the handicapped children."*
>
> *"Just 1 student last semester."*
>
> *"two were referred for counselling, two for special instruction."*
>
> *"two were referred for disciplinary reasons; two for counselling; four for special instruction and six for psychological testing...but it hasn't been a direct result of having handicapped children in my classroom."*

> *"I've been here three years --it's just a matter of course. There are a lot of home and discipline problems. I refer two or three a year. None this year."*

The final question in this section read, *"If you haven't noted them already are there any other beneficial or detrimental effects that you have experienced as a direct result of teaching handicapped children in your classroom?"* Some of the replies included:

> *"It helps these kids feel normal...but the classes tend to get high, which cuts down on individul attention."*
>
> *"Art is a good experience for them."*
>
> *"I'm quite concerned that they're integrating into a false situation. They don't have the kinds of examples to follow (in this school) that they might have in their home school. They're bussed in to (our school) then they're expected to go back to their community. They should be integrated into a community school where they live then they can make friends. Here they have to make two sets of friends...it's compounding the problem. In a school that has four Grade 4 classrooms it wouldn't cause as much stress and as much of a hassle. A small school is a bad place to integrate."*
>
> *"I've had physically handicapped students -- it's brought out the best in the rest of the class. I'm really not in favour of integrating children with behavioural problems. I've found only detrimental effects."*
>
> *"I'll never again think of the special ed students as the 'weird kids down the hall'. I would push for integration, but I don't think you can integrate all. We, because we are a team, have broad enough experiences that we can cover situations. I don't know that a single teacher could deal with the range of problems they get. Unless it's a team, it would go belly-up in my view. We have a team that works together. We're able to understand the special ed point of view, (the special ed teacher) is able to understand the regular teacher's point of view, and we meet somewhere in the middle."*
>
> *"Shop and home ec are good places to integrate."*
>
> *"I would find it difficult to deal with them if the teacher didn't work with me in a team situation."*

Effects on the Teachers -- Summary. Sixteen respondents answered that teaching handicapped children had been a positive experience for them, and nine replied that it had been a negative experience for them.

Those answering that it had been positive mentioned basically that the experience had "opened their eyes", and that they were encouraged because the handicapped children were often cited to take pride in their successes. Those that indicated that it had been a negative experience for them listed lack of time, frustration, and fatigue as the primary reasons.

Nineteen teachers replied that the presence of handicapped children in their classroom affected their teaching methods and/or organization; seven replied that it had not. The differences basically were organizational; and seventeen teachers replied that it made a difference to the way in which they perform their teaching functions, particularly with respect to planning time.

When asked if the presence of handicapped children in the classroom created stress for the teachers, twenty teachers replied "yes" to both questions asked ("Do you find that you are able to teach your handicapped pupils adequately and without stress, and do you find that you are able to teach your non-handicapped pupils adequately and without stress, with a handicapped child in your class?") Twelve teachers replied "no", giving their reasons, and two teachers gave "yes" and "no" answers. Those that said "yes" gave qualifications, such as "not enough time, but I did not find it stressful", and "without the special provisions it would be stressful". Those that replied "no" gave reasons such as "I wish I had smaller classes", and "repetitiveness is where I get stress with them".

The teachers were then asked whether the presence of handicapped students in the classroom had helped them in any way to identify other children with mild handicaps. One half of the respondents said "yes", and one half said "no". Those that said "yes" basically related their replies to an increased awareness in general.

Referrals from the classroom did not, in general, result directly from the presence of handicapped children. One or two were referred for counselling or testing purposes.

In summary, most teachers felt that non-academic subject areas were positive places to integrate handicapped children, that integration with regular students helped the handicapped children "feel normal" or enhanced their social skills; and that, given the resource materials and people, that integration has been a positive experience.

Resources for Teaching the Handicapped. In this section of the interview the first question the regular teachers were asked was, *"Were you provided with any extraordinary types of resource supports this year because you had handicapped students in your class? If so, please describe these resources and comment on their adequacy."*

The following list was given:

a. provision of teaching materials for the handicapped;

b. changes in class size;
c. in-service training, e.g. workshops, conferences;
d. availability of special training services, e.g. itinerant teachers;
e. availability of teacher aides, e.g. paid aides, volunteer aides;
f. clerical and record keeping assistance;
g. extra time.

Seven teachers replied, "yes", they were provided with extraordinary types of resource supports this year. These included EOF supplies through the provincial government, extra aides, smaller classes, volunteers, teacher aides (the extra volunteer aides were obtained through the teachers' own initiative). Sixteen answered "no". One commented, "We've been fighting for an aide."

The next question which was posed to teachers was, *"Are there any other types of resources which would have been useful to you? If so, what would these be?"* Fourteen respondents answered "no" (if a. to g. were provided); other replies included:

> *"I really think that there would be library resources if we were aware of and had the budget for them"*
>
> *"I would like to see conferences dealing with integration of handicapped students. I would also like to see a specialist coming into the school who would outline special methods and materials that could be beneficial."*
>
> *"The ability for someone to allow us to go together (this is a comment made by one member of a teaching team) to this conference...only one of us is able to go. If a conference comes up and we don't have a label, we can't go. Emphasis is being pushed onto teachers, yet more and more researchers are being employed."*
>
> *"I would like to have had courses at the university when I was taking my degree."*
>
> *"It would be nice to have more prep time."*

The final question in this section read as follows, *"Has the number of requests made by you for resource support changed since you took handicapped children into your class room?"* Only two teachers answered "yes", the overwhelming majority replied they hadn't made any requests. Regarding the two teachers who made requests; these were for a timer, and for a teacher aide, respectively.

Resources for Teaching the Handicapped -- Summary. Seven teachers interviewed had been provided with resource support, given the handicapped children in their classrooms, and sixteen answered that they had not been given resource support. Some teachers mentioned that useful resource supports would include library resources, conferences dealing with integration of handicapped students, in-service training, courses at university level, and more preparation time.

Directions and Extent of Integration. Regular teachers were asked, *"In a very general sense, what are the factors which contribute to successful integration? Conversely, what factors create difficulties?"* The replies to these questions were extremely divergent, broad in scope and varying in tone, often depending on the actual experience that the teacher had had.

Factors which contribute to success were first noted. Among the responses were comments such as:

> *"In my area (technical) you can provide the handicapped person with some success, and others see this -- this helps to integrate them."*
>
> *"It's people...teachers -- some do it beautifully, some can't do it at all."*
>
> *"The positive, healthy attitude that special ed teachers engender in their kids to be as open to other kids as possible."*
>
> *"The child has to be ready to come back into a classroom situation."*
>
> *"The positive attitudes of the teacher, the parents and the ability of the child to adjust to the situation. Suitable materials available, support services and resource people available, and small class size."*
>
> *"family type of grouping...personal honesty that teachers project."*
>
> *"We have an awful lot of space, and I think that's important. We don't aggravate our problems by being close together. The home environment is a comfortable place to be. Our team has a particularly good attitude -- it could be coined by the phrase 'child-centred'."*
>
> *"It's good that the kids know when someone (handicapped child) is coming before they arrive...that they have a regular space; that you tell the kids that when these people come in that they need a little bit extra help and that they're on time when they come to join you. It's up to the special ones to be there."*
>
> *"A category 'A' grant, and a visiting teacher."*

> *"The appropriate age, and size, is important, as well as the general personality of the student."*
>
> *"The teacher's attitude; the teacher should be tolerant and not under stress."*
>
> *"...as long as they're not damaging to other children -- physically."*
>
> *"A lot depends on the resource room teacher herself."*
>
> *"The Calgary School Board should have resource rooms."*

Almost all respondents mentioned a small class size as a factor which would contribute to successful integration. Teacher and parent attitude surfaced repeatedly, as did parent outlook.

Next, factors which cause difficulty were noted by the teachers interviewed. Some of the responses were:

> *"Not being given every bit of knowledge about them. These kids have been in the system for ten years. Eight or nine years ago...there was something the matter with my grouping. After some time I found out that out of 25 I had 15 that were honors students, and the other 10 had been sent in from a vocational school. Eventually two rows of 'dummies' formed --that's what they became."*
>
> *"I had a student whom I was asked just to keep an eye on. I asked why -- you had better tell me the whole story. The student had tried to commit suicide; well I should be watching out for that student..."*
>
> *"If you don't have support from home, for example, if dad is beating up mom, it's impossible to get these children's attention because they're thinking of other things. ...And there are parents who don't want their children.*
>
> *"Too large a class size, lack of teaching aides, reluctance of a child to socialize, availability of suitable materials."*
>
> *"If we took the time to educate the people we may not have these difficulties."*
>
> *"I don't think it would be wise to integrate them into regular classes. The teachers have not enough time. They (the handicapped students) would get neglected too much. It's difficult to expect one thing from one student and another thing from another."*
>
> *"When kids are late -- you have to stop."*

> *"Big classes."*
>
> *"The visiting teacher had never observed the child and apologised saying 'I didn't know what I was bringing in...'"*
>
> *"For example (#3) is getting nothing out of it, but there is no place else for her to go."*
>
> *"Difficulties are caused when things are pushed on the teacher, too."*

Almost all respondents indicated the need for strong resource people, small class size, suitable materials, and acceptance on the part of the children, and on the part of the teachers who were going to have these children, as factors which must be considered.

The following question was then asked of the teachers, *"With the level of resource support currently available to you, what is the maximum number of handicapped pupils which you could comfortably accommodate on a full-time basis?"* The teachers answered as follows:

> *"Ten (out of ten) is the maximum (a homogeneous group for a shop class)."*
>
> *"I'd say three."*
>
> *"In my program, industrial arts, the maximum would be five or six out of twenty."*
>
> *"Behavioural problems -- not even one."*
>
> *"None."*
>
> *"...wouldn't want more than three, at most."*
>
> *"Seven mild - o.k."*
>
> *"I wouldn't want to have over 4 students, maybe 5 -- I wouldn't want to have just 1, either."*
>
> *"It's hard to have more than 2 or 3 in the class."*
>
> *"...out of 20, 3 with moderate handicapping conditions -- not emotional."*
>
> *"5 maximum for a new teacher."*
>
> *"1 or 2."*
>
> *"1 or 2."*
>
> *"2"*

> *"With 37 kids!..."*
>
> *"Given an average class size, 27 -- 8 is too many."*
>
> *"With our present situation (3 - member team teaching of 66 students in total) the maximum number would be 12."*
>
> *"If I were in a classroom by myself, out of 20, I'd be willing to take up to a fifth."*
>
> *"Five out of thirty-five for a gym class is fine."*
>
> *"Physically (handicapped) - nil. Mentally handicapped -- I could get by with ten percent of the class."*
>
> *"With small groupings you could handle 1 to 2 at the most, with the idea that if they didn't work out they could go back."*

When asked, *"Are there any types of handicapped pupils whom you could not or would not wish to teach within a regular classroom?"*, the majority of teachers mentioned temperamental, emotionally disturbed children, who would disrupt the class. Many mentioned severely and moderately retarded individuals, and those with severe learning problems, severe discipline problems, or severe physical handicaps. These types of pupils carried over in the teachers' answers to the following question, which read, *"Are there any types of handicapped pupils whom you feel should not, for their own sakes, be taught in a regular classroom?"* The majority felt that teacher training was crucial for the handicapping conditions that could be described as severe.

The respondents were then asked, *"Generally speaking, do you think that the amount of integration in Calgary schools should be increased? Why or why not?"* Eleven teachers responded with a clear "no", and gave their reasons. Only two indicated a clear "yes", and gave reasons, four teachers indicated that the current amount of integration in their schools was high (two said "a great deal", the others said "quite a bit", and "enough"), and nine gave conditional answers. The majority were not in favour of integrating children with severe handicapping conditions or with emotional problems. All indicated that it would depend on the resources available, such as resource room teachers, visiting teachers, time, class size, and so on.

The next question carried on from there. It read, *"If the Calgary Board of Education decides to increase the level of integration within the regular school system, what are the most important considerations to take into account?"* "Class size" was indicated in almost every response. The following are some responses which are representative of the general tenor of the answers given to this question:

> *"How the teachers themselves feel. It's a great idea having you come out (to the interviewer). A lot of*

> *teachers feel it's not the best thing for the child to integrate. We need small classrooms, aides..."*
>
> *"They had better really screen the teachers. I know good teachers but who could not function with (#2). ...class size, how much extra help you can get from the outside."*
>
> *"I don't think integration should be forced. If someone doesn't believe in it, the kids will sense it, pick it up -- it can't do anyone any good. A lot of times a teacher won't be aware that it is exhausting. Someone should be able to monitor and pull a child out."*
>
> *"What areas to do it in...wouldn't want to integrate across the board."*
>
> *"We have to remain realistic as far as class size and preparation time are concerned."*
>
> *"We absolutely have to have some way of dealing with the mental health of the kids."*
>
> *"Home school placements. Integrating kids a little bit at first...rather than plunk them in.*
>
> *"Physical facilities, more in-service provided to help teachers relate to the problems."*

Directions and Extent of Integration -- Summary. In summary, almost all teachers mentioned small class size as a factor which would contribute to the successful integration. Positive teacher, parent and student attitude was also a very important factor, as well as the proper resources and resource persons.

The maximum number of handicapped pupils which teachers felt they could comfortably accommodate ranged from [illegible]0% to one-fifth, to one-fourth of class size, but did not go beyond that limit. They gave qualifications to their answers, however, and most stated that they would not wish to have students with severe handicapping conditions whom the teachers felt they were not specially trained to handle, nor did they wish to have students with emotional or behavioural problems, giving the reason that these latter students would disrupt the regular students.

When asked if integration in Calgary schools should increase, eleven teachers responded with a clear "no", two with a clear "yes", four said that the present amount of integration was sufficient, and nine gave conditional answers. The majority were not in favour of integrating children with severe handicapping conditions or with emotional problems. The most important considerations that should be taken into account, as reported by the majority of the teachers, were: teacher willingness and views with respect to integration; teacher qualifications; personalities of teacher, child, and sometimes parent; proper areas to integrate in; class size; proper physical facilities; home school, gradual integration into home school.

OBSERVATIONS

This section presents observations of the research based on the summaries of each of the seven components of the interview schedule. There has been no attempt to establish priorities in the order of presentation.

Background of Teachers and Experience with Handicapped Children.

REGULAR TEACHERS GENERALLY HAVE NO SPECIFIC TRAINING FOR TEACHING HANDICAPPED STUDENTS.

REGULAR TEACHERS GENERALLY HAVE NEVER TAUGHT ANY SPECIAL EDUCATION CLASSES.

REGULAR TEACHERS WERE FOUND TO HAVE UP TO 22% OF THEIR REGULAR CLASS FORMED BY HANDICAPPED STUDENTS.

THE LARGE MAJORITY OF HANDICAPPED STUDENTS IN REGULAR CLASSES WERE IDENTIFIED BY REGULAR TEACHERS AS HAVING "MODERATE LEARNING DISABILITIES."

MOST REGULAR TEACHERS HAVE MADE NO SPECIAL ARRANGEMENTS FOR THE HANDICAPPED STUDENTS IN THEIR CLASSROOMS.

MOST REGULAR TEACHERS HAVE NOT BEEN SPECIFICALLY SELECTED TO TEACH HANDICAPPED STUDENTS FOR ANY REASON THAT THEY ARE AWARE OF.

ONE HALF OF THE TEACHERS INTERVIEWED WERE FAMILIAR WITH CALGARY BOARD OF EDUCATION DIAGNOSIS AND PLACEMENT PROCEDURES.

OF THOSE FAMILIAR WITH THE CALGARY BOARD OF EDUCATION DIAGNOSIS AND PLACEMENT PROCEDURES, NEARLY ALL FOUND THE METHODS INADEQUATE.

Only seven out of twenty-eight regular teachers interviewed had in-service training, university courses, or workshops. The remainder replied that their knowledge with respect to handicapped children was gained through on-the-job experience.

The minimum number of handicapped students that a teacher was found to have was one; most had between three and five, forming ten per cent plus of their regular class. The highest ratio was found to be 22%, a situation in which a regular teacher, with eight years teaching experience, but no specific training for handicapped children, reported to have eight handicapped students out of a total class of 37.1.

Most teachers identified their students as having moderate learning disabilities; only a few teachers had children with physical impairments; several reported having children with linguistic and cultural handicaps.

The majority of teachers made no special arrangements for their handicapped students, and indicated lack of time in general, as the reason.

In general, there was no rationale behind the selection of these regular teachers to teach handicapped students, other than interest shown by the particular teacher or timetabling.

Of those teachers who indicated that they were familiar with Calgary Board of Education diagnosis and placement procedures (roughly one-half of the sample), these procedures were considered to be inadequate primarily for reasons of too much bureaucracy and not enough openings for students needing special services.

Effects (of integration) on Handicapped Students.

IN SOCIAL, BEHAVIORAL, AND EMOTIONAL ASPECTS, REGULAR CLASS PLACEMENT FOR HANDICAPPED STUDENTS WAS FELT BY THE MAJORITY OF TEACHERS TO BE AN EFFECTIVE FORM OF PLACEMENT.

IN ACADEMIC AREAS OVER HALF OF THE REGULAR TEACHERS FELT THAT REGULAR CLASS PLACEMENT WAS AN EFFECTIVE FORM OF PLACEMENT FOR HANDICAPPED STUDENTS.

LANGUAGE USE, WORK HABITS, SOCIAL SKILLS, EXPRESSIONS OF CONFIDENCE AND EMOTIONAL BEHAVIOR WERE CONSISTENTLY RATED AS INDICATIVE OF EFFECTIVE CLASS PLACEMENT OF THE HANDICAPPED STUDENTS IN REGULAR CLASSES.

REGULAR TEACHERS WERE GENERALLY HESITANT TO RATE REGULAR CLASS PLACEMENT AS EFFECTIVE FOR HANDICAPPED STUDENTS IN THE ACADEMIC AREAS.

REGULAR CLASS PLACEMENT FOR HANDICAPPED STUDENTS SHOULD BE CONSIDERED FOR CLASSES IN NON-ACADEMIC AREAS.

Effects on Non-Handicapped Students.

THE PRESENCE OF HANDICAPPED CHILDREN IN REGULAR CLASSROOM WAS GENERALLY FELT TO HAVE A POSITIVE EFFECT ON THE NON-HANDICAPPED STUDENTS, ENCOURAGING TOLERANCE, ACCEPTANCE, AWARENESS, AND HELPFULNESS.

THE ONLY MAJOR DETRIMENTAL EFFECT ON THE NON-HANDICAPPED STUDENTS RESULTING FROM THE PRESENCE OF HANDICAPPED STUDENTS WAS AN INEQUITY IN INSTRUCTION TIME.

Only three out of the twenty-eight teachers interviewed answered "no" when asked if they had noticed any positive, beneficial effects on the non-handicapped students resulting from the presence of handicapped students. Half of the teachers interviewed noted that lack of sufficient instruction time for non-handicapped students was the major detrimental effect.

Effects on the Teachers.

THOSE TEACHERS FOR WHOM TEACHING HANDICAPPED CHILDREN WAS A NEGATIVE EXPERIENCE LISTED LACK OF TIME, FRUSTRATION AND FATIGUE AS THE REASONS.

THE PRESENCE OF HANDICAPPED CHILDREN IN THE REGULAR CLASSROOM AFFECTED MOST TEACHERS' TEACHING AND/OR ORGANIZATION.

THERE WAS GENERAL AGREEMENT THAT WITHOUT EXTRA TIME AND SPECIAL PROVISIONS TEACHING HANDICAPPED STUDENTS IN A REGULAR CLASSROOM WOULD BE STRESSFUL.

MOST TEACHERS INDICATED THAT NON-ACADEMIC SUBJECT AREAS WERE POSITIVE AREAS IN WHICH TO INTEGRATE HANDICAPPED CHILDREN: THAT THIS ENHANCED THE HANDICAPPED STUDENTS' SOCIAL SKILLS, FEELING OF CONFIDENCE, AND CHANCES FOR SUCCESS.

THE TEACHERS GENERALLY FELT, GIVEN THE RESOURCE MATERIALS AND PEOPLE, TIME, AND SMALLER CLASSES, THAT INTEGRATION HAS BEEN A POSITIVE EXPERIENCE.

It appears paramount that teachers be allowed extra time if handicapped children are integrated into their regular classroom.

Special provisions, such as resource materials and resource people, are needed by regular teachers with handicapped students in their classes in order for them to teach without stress.

Resources for Teaching the Handicapped.

THE MAJORITY OF REGULAR TEACHERS INTERVIEWED REPORTED THAT THEY HAD NOT BEEN GIVEN RESOURCE SUPPORT.

ALL TEACHERS AGREED THAT RESOURCE SUPPORTS (ALL TYPES) WOULD BE USEFUL, EMPHASIZING EXTRA TIME AS ONE OF THE MOST HELPFUL RESOURCE SUPPORTS.

Teachers agreed that the following resource supports would be useful when handicapped students are placed in their regular classes: a) provision of teaching materials for the handicapped; b) changes in class size; c) in-service training; d) availability of special teaching services; e) availability of teacher aides; f) clerical and record keeping assistance; and g) extra time. In addition to these, teachers mentioned as useful resource supports: information and records of handicapped students being made available to them; library resources; conferences dealing with integration of handicapped students; courses at university level; and more preparation time.

Resource supports should be provided to teachers who have handicapped students integrated into their regular classes, the most important of these being extra time.

Directions and Extent of Integration.

THERE IS GENERAL AGREEMENT AMONG REGULAR TEACHERS THAT SMALL CLASS SIZE IS THE MOST IMPORTANT FACTOR WHICH WOULD CONTRIBUTE TO SUCCESSFUL INTEGRATION.

POSITIVE ATTITUDES EXPRESSED BY TEACHERS, THE STUDENTS THEMSELVES AND THEIR PARENTS WERE ALSO NOTED TO BE A VERY IMPORTANT FACTOR TO SUCCESSFUL INTEGRATION.

THE PROPER RESOURCE SUPPORT WAS NOTED TO BE A VERY IMPORTANT FACTOR TO SUCCESSFUL INTEGRATION.

THE MAXIMUM NUMBER OF HANDICAPPED STUDENTS WHICH TEACHERS FELT THEY COULD COMFORTABLY ACCOMMODATE DID NOT GO BEYOND ONE-FOURTH OF CLASS SIZE.

THE MAJORITY OF TEACHERS DID NOT WISH TO TEACH STUDENTS WITH SEVERE HANDICAPPING CONDITIONS OR WITH EMOTIONAL AND BEHAVIOURAL PROBLEMS.

THE MAJORITY OF REGULAR TEACHERS INTERVIEWED RESPONDED WITH A CLEAR "NO" WHEN ASKED IF INTEGRATION IN CALGARY SCHOOLS SHOULD INCREASE.

The regular teachers interviewed generally felt that they were not specially trained to handle children with severe handicapping conditions; and the majority of regular teachers did not wish to teach students with emotional or behavioural problems within the regular classroom, giving the reason that these students would disrupt the regular students.

The majority of the teachers felt that the present amount of integration, as they knew it, was sufficient. The majority were not in favour of integrating children with severe handicapping conditions or with emotional problems.

The most important considerations that should be taken into account with respect to increasing integration were: teacher willingness; the teachers' views with respect to integration; teacher qualifications; class size; which areas to integrate; proper physical facilities; home and school environments; and the speed at which integration takes place (teachers favoured gradual integration).

Report #7: SPECIAL EDUCATION TEACHERS

A Report of Data Derived from Interviews with Teachers of Special Education Classes

Concerning:
- Extent of Integration
- Impact of Integration
- Resources Required to Support Integration

What are the opinions of special class teachers concerning integration of handicapped children?

TABLE OF CONTENTS

Page

Introduction 7-4

Methods 7-4

Rationale and Objectives 7-4
Data Sources 7-4
Survey Design 7-4
The Instrument 7-4
The Sample 7-5
Data Collection Procedures 7-5
Data Analysis and Reporting Procedures 7-6
Reporting Format 7-6

Presentation of the Findings 7-6

Background of the Special Education Teachers 7-6
Descriptions of the Special Classes 7-9
Summary 7-9
Integration in the Schools in which the Respondents Teach 7-9
Summary 7-20
Effects of Integration on Non-Handicapped Students, the General Learning Environment and Regular Teachers 7-25
Effects of Integration on the Special Class Student 7-30

(Table of Contents Continued)

Page

Future Directions, Desired Level of Integration 7-40

Observations 7-44

LIST OF TABLES

Page

Table 1: Identification of Type and Degree of Handicaps of Special Class Students 7-8

Table II: Ratings of Effect of Special Class Placement in a Regular School on Handicapped Students 7-26

Report #7: Special Education Teachers

*What are the opinions of special
class teachers concerning
integration of handicapped children?*

INTRODUCTION

This section of the report deals with the results of 25 interviews with special education teachers. The overall purpose of the interviews was to examine the impact of integration on handicapped children, the teacher and school environment in general. A secondary purpose of the interviews was to elicit information about operational concerns, policy considerations and recommendations for future directions for integration in Calgary schools.

METHODS

Rationale and Objectives. One of the problems of concern in this study related to the effects of integration on handicapped children, their families, teachers and other students. Because special education teachers work very closely with handicapped children, it was felt that their opinions would represent an important knowledge base about the desirability of integration.

By adopting an interview format which featured a number of relatively open questions, it was anticipated that the special teachers interviewed would provide fairly detailed illustrations and reasons accompanying their viewpoints. In addition, the objective of the interviewing technique is to result in a depiction of the situation which reflects the real situation as closely as possible. Factual examples were solicited from respondents frequently throughout the process.

Data Sources. Special education teachers were selected randomly from schools indicated by principals as having handicapped students. Special education teachers at both the elementary and junior high school level were interviewed.

Survey Design. A descriptive survey design was employed utilizing a semi-structured face-to-face interview technique.

The Instrument. The interview schedule developed for interviewing special education teachers was designed so as to be flexible, through the use of semi-structured questions, in order to produce in-depth responses. The schedule outlined the purpose of the study, and proceeded to probe for responses concerning the background, experience, and viewpoints of the teacher who was given a copy of the schedule to read the questions as they were posed.

The semi-structured format, which made use of numerous open questions, was employed for several reasons: a) the population was a specific one; b) less time was taken using an interview format, c) the former process was considered to be less of a strain on the respondents; and d) the nature of the topic, in view of the difficulty of describing and assessing handicapping conditions and related effects, was amenable to a personal interview style.

The interview was piloted and revised so that ambiguous phrasing of questions was struck and clarity was enhanced where possible. The final draft of the interview schedule dealt with the following questions:

1. What is the educational background of the teachers responsible for special classrooms in the schools of the Calgary Board of Education?

2. What are the characteristics of children accommodated in the special classrooms of the Calgary Board of Education?

3. How does integration of special class children operate on a day-to-day basis in the schools of the Calgary Board of Education?

4. What are the beneficial and/or detrimental effects of integration?

5. What policy and resource considerations, with respect to integration, are important for establishing future directions?

The Sample. From the total population of public schools, a stratified random sample of 31, or approximately 18% of the total, was selected (See Report #4 for full reporting). Principals of these schools were asked to complete a "School Self-Study Form," indicating numbers of handicapped in their schools. Twenty-three of the 31 indicated that they had moderately or severely handicapped students among their student population. To these 23 schools were added the names of all schools in Calgary with special classes. From this final composite list, a sample of 25 schools was selected at random.

Data Collection Procedures. The encounters with the special education teachers were set up as individual interviews. Twenty-five interviews were conducted in total. The interviews were carried out in the schools, either on a one-to-one basis in an isolated setting, such as an empty conference room, guidance room, or relatively empty staff room; or in the teacher's classroom when the students had been dismissed for the time. Covering arrangements were made for some of the teachers; others were interviewed during their lunch hour or after school. As much as possible, direct quotes were recorded from the teachers.

Data Analysis and Reporting Procedures. Following each interview the interviewer reworked notes or added supplementary information. Data were analysed through a non-statistical reviewing, sorting and combining of interviewee responses, which were coded and combined into groups so that the general tenor could be summarized. Quotations have been selected to convey the general tone of the viewpoints expressed by the special education teachers.

Qualitative responses to each question were listed and grouped to determine trends. These trends were then reported according to the frequency and content of the response. Illustrative examples of each trend have been reported to convey comparisons that were typical of the group interviewed.

Information relative to the general questions addressed in this part of the study are presented in the Presentation of the Findings, which follows.

Reporting Format. The section which follows will present and summarize the findings of this part of the study. These are presented under the following major headings.

1. Background of the Special Education Teachers;
2. Descriptions of the Special Classes;
3. Integration in the Schools in which the Respondents Teach;
4. Effects of Integration on Non-Handicapped Students, the General Learning Environment and Regular Teachers;
5. Effects of Integration on the Special Class Students;
6. Future Directions, Desired Level of Integration.

Each of the above sub-sections include the recorded observations and viewpoints as expressed by the respondents, summaries of answers when a general trend was apparent, and responses given by special education teachers when asked general questions pertaining to the nature, extent, and future directions of integration.

PRESENTATION OF THE FINDINGS

Background of the Special Education Teachers. Out of a random sampling of 25 special education teachers the number of years of teaching experience in the field of special education ranged from 2 to 14 years working with various types of handicapped children from EMH, TMH, LD, to PH. Experiences in degree of handicap ranged from mild, moderate to severe handicapping conditions and varied with levels of handicap from junior, intermediate to senior.

Descriptions of the Special Classes. The special education teachers who were interviewed reported all of their students to exhibit various behaviours depending on the type and degree of the handicap. However, most students had a number of common characteristics, such as a short attention span, emotional highs and lows, slow learners, passive-agressive students, immaturity , social immaturity, disorganization, attention seeking, hyperactivity, fantasizing. Many seemed to have a background of parental problems, and social and cultural deprivation. Academic characteristics ranged from those who had the ability to learn at a slow rate given the proper environment to those who were severely impaired. Learning characteristics were displayed as low in reading, writing, math and science. Some were non-readers, had brain damage, lacked reasoning skills, or lacked motor skills (eg. unable to tie shoes). Many had poor visual-motor perception and exhibited reversal patterns. Some appeared to be bright students, but had other handicaps. Many had peer-friction problems that interfered with social interaction. Physical handicapping conditions ranged from problems of speech, paraplegia, amputation, hearing, epilepsy, unusual smallness, visual impairments, to cerebral palsy.

Handicapping conditions also included emotional problems, insecurity, non-controlled bodily movements, excessive talking, immaturity, frequent fantasizing, inappropriate behaviors; temper tantrums, crying, reactions against criticism, memory lapses, schizophrenia and general neurological problems.

Most children were in regular classes before their placement in a special class and originated from within the school itself. Others came from outside the community school. However, a high portion were previously in segregated setting, while a few came from outside of Calgary.

The method used in most cases was an individual description of the total number of students per class.

Table 1

Identification of Type and Degree of Handicaps of Special Class Students

Type	Degree of Handicap	No. of Pupils
EMH	Severe - (inability to function in a regular classroom) - 4	4
EMH	Moderate - 12	12
LD	Moderate - 10 Between moderate and severe - 1	11
EMH	Moderate - 1 Mild - 1 Not distinguished - 6	8

Table 1 (Continued)

Type	Degree of Handicap	No. of Pupils
LD (also 1 EMH)	Moderate - 7 Mild - 2 Not designated - 2	11
Visually impaired	Moderate - 2 Mild - 2 Between moderate and severe - 1	5
Visually Impaired	Totally blind - 2 Mild - 1	3
EMH PH- TMH	Moderate - 8 Moderate - 1 (predicted for a segregated setting) Moderate - 1	10
EMH	Moderate - 11	11
LD	Moderate - 5 Mild - 1 Severe - 1	7
EMH	Between moderate and severe - 10[1]	10
LD	In an EMH class but has more or a LD problem - 1	1
EMH	Moderate - 11	11
TMH	*The transitional TMH classes are supposedly made up with the top of the TMH students from segregated settings and they are not classified as severe.* *I would classify these students as moderate by a) a degree to which they function and maintain themselves independently, b) degree to which he meets satisfactorily culturally imposed demands of personal and social responsibility.*	8
Emotionally Disturbed	Mild - 7 Moderate - 1	8

---

[1] The respondent was quoted as saying, *"I cannot fit my students into a specific category."*

Descriptions of the Special Classes -- Summary. When asked, "How many students are in your class?", the replies indicated a range of 4 to 24.

The description of students in these special classes were highly diverse -- an extensive range of physical, mental and emotional handicaps characterized the special class students. Respondents clearly indicated "severe" as the degree of handicap for only 5 pupils; the majority of pupils were considered to be moderately handicapped. There was some reluctance on the part of the interviewees to categorize their pupils.

Most children were reported to have been in regular classes before their placement in the special classes and originated from within the school. A fair number of pupils had come from segregated settings.

Integration in the Schools in which the Respondents Teach. The first question in this section asked, *"Does your class as a whole, or individual members of it, participate in any types of shared activity with the non-handicapped students? Answer first in terms of the entire class. Does it take part in any activities with the other children?"*

It was reported that special education classes (18) as a "whole" take part consistently in 4 types of shared activities with non-handicapped students which include playground at recess, general assemblies, concerts and field trips. Noon hour activity was not as consistent and in most cases was an area of concern that interfered with social interaction with regular students because of a bussing situation. The following comments indicate a concern:

> *All ten are bussed. Out of ten years I have had 2 kids that went home for lunch. They can make friends here but when they go home they don't have them. Also, it's harder for parents to become involved.*
>
> *The lunchroom stops with regular kids. After lunch they are segregated because the regular kids go home. Even the regular kids who stay for lunch don't integrate with the special education kids. They go into their own groups.*
>
> *Eight students are bussed and cannot take part as easily in school activities. Their parents have to be willing to get involved and drive.*
>
> *We have a separate lunchroom. I have been developing integration by inviting regular students to share lunch with us. Handicapped stay for lunch (8 out of 11) and do not have the availability of the non-handicapped as they go home for lunch.*

The following comments indicate that although playground interaction was available at recess and occasionally at noon, the degree of interaction was limited:

> *Yes, but neither groups desire interaction.*
>
> *The opportunity is there, but the degree of playground interaction is limited. Some kids are able to integrate quite well, while others aren't welcomed by regular students because of their behaviour problems.*
>
> *No, they play within their special group. We have 18 kids and when they are in smaller groups, i.e., 8, they participate a lot more.*
>
> *Some, not all of them, will do so on their own initiative. A lot of them have a great deal of trouble with working with others.*

Teachers (18) reported that field trips, although available to all students, were selectively taken advantage of when it met the academic and social needs within the particular class. Usually they were kept to a minimum.

When asked to answer in terms of individual students, it was reported by the majority of teachers (18) that students took part individually in activities in non-academic subjects such as art, phys. ed., and music on a partial basis with an individual selective criteria for placement of emotional-social adjustment.

> *The same type of integration applies to the options of art, phys. ed., and music. If their social characteristics are okay they are integrated into the options. Large physical size can be a problem in phys. ed.*
>
> *Option selection is determined by emotional-social adjustment.*
>
> *Students are integrated into the options on a selective criteria of good behaviour.*
>
> *Non-academic classes are not integrated as an entire class - as an entire class, no.*

One teacher reported that the entire class was integrated in the academic stream.

> *Because of the multi-aging, thematic approach and team teaching, they are able to participate in all things. We have math activity centres and they are able to measure together.*

> *We have an even split where each child has his home room teacher and comes to the special education teacher in what is known as the resource room for half a day, primarily for language arts and math. They have all fine arts with regular teachers. Some students have an overlap of math with the regular students. All activities are shared with the regular students. We don't have that label that they are a special education kid.*

It was also reported by the majority of teachers (18) that students took part individually in activities in academic subjects on a partial basis with individual selective criteria of social adjustment and ability to understand.

> *The type of integration depends on the individual student and is done selectively in academic areas. We have integrated 3 of our 11 students for social studies only. Academic integration can be a problem when the child is able to integrate mentally, but not always able to fit physically.*
>
> *Students are integrated into the academic classes on a selective criteria of behaviour and ability.*
>
> *The amount of time spent in integration is dependent on the child.*
>
> *We have no integration academically because regular classes are too large.*
>
> *My kids take part in the academic area of science. It's a science of process approach and that's the only reason they can take part in this.*
>
> *We have reverse integration; a group of 6 from regular classes come into our room for social studies.*

Special Arrangements for Integrated Activities. When asked, "*Has the school administration, or have the other teachers had to make special arrangements to allow these shared activities? If so, please describe those special arrangements*" many teachers (12) reported school administrators and teachers did not have to make special arrangements to allow for shared activities. Comments were:

> *No, part and parcel of the whole school program.*
>
> *No, very adaptable to school timetabling.*
>
> *No, we have receptive teachers.*

> *But for the whole I only integrate students capable of keeping up with the program for the regular students. If they can't keep up they are taken out.*

> *No, just part of the program.*

A few teachers (2) reported administrators had to make some special arrangements.

> *Because this class is fairly mobile, administrators are continuously having to revise the grouping within the life activities program (i.e., how many kids are going swimming, skiing, etc.). Other than specific arrangements I have with them for discipline problems, this is the only adjustment the administration needs to make.*

> *Administration timetabling senior transitional TMH classes into grade 7 shop, home ec., and phys. ed. This can only be done if regular classes are small.*

Some teachers (7) reported regular teachers had to make some special arrangements.

> *It's obvious that they have had to make some arrangements. They have to bend the rules; bend the criteria. They are asked to do a few additional things like fill in integration reports.*

> *Regular classroom teachers are invited to give invitations to special classes for activities they feel might interest special students.*

> *Team planning is a must in our school. An incredible amount of time is spent assuring suitable activities and programs especially in gym, art and music to make sure the special education kid fits.*

> *When they go on field trips because of the nature of the field trip often they've had to make special arrangements. Often it's necessary that I take my own vehicle. Previously where children had to leave early I've had to bring them back early.*

A few teachers (4) commented they had to make special arrangements to integrate the handicapped student.

> *We are the ones who have to be accommodating because their scheduling is done first and we have to fit in later. That's why my children only get phys. ed.*

> *Regular class teachers plan their timetable and we adapt if possible; often it is not. Flexibility must be on our part.*
>
> *We have to be on our toes becuase we miss out on extra things if we aren't around them from assemblies to special talks.*

A few teachers (3) reported an exchange situation where both the special education teacher and regular teacher had to make special arrangements:

> *I bring in extra regular classroom kids for math 1 hour every day. This is supposedly an exchange for regular classroom teachers taking our special education students. Our class should not exceed 12 or 13 kids but as it turns out we have 5 extras which is defeating the purpose of special education.*
>
> *There is considerable resentment from staff members; a feeling that special class teachers don't work as hard as they do and therefore we should do more in return, i.e., an exchange to integrate 3 special students could mean taking a class of 27 children for 30 minutes to an entire half day per week extending past our 3 o'clock dismissal with no prep time. This has happened at our school.*
>
> *We use an interchange. I use Junior High facilities and teachers such as shop and home ec. teachers. Junior high teachers teach special education kids in this setting while the special education teacher teaches regular students. It's healthy for the teacher and good for the kids to learn to cope with another personality.*

Extent of Social Integration Within the School. The following question posed read as follows *"Do you think that your pupils feel as though they are 'really' a part of this school? Do you think that they feel they belong here? Please comment."* Teachers (5) reported their pupils feel they belong to the special education part of the school rather than the school as a whole.

> *They feel they belong to the special education part of this school. The main reason is we are physically divided from the rest of the school, although not intentionally. It was done for teachers working together and availability of space.*
>
> *Yes, because of integration. But they look on their classroom as their home base and have a feeling of shelter here. Integration is enjoyable because of the lack of pressure when integrating into non-academic areas of art, music and phys. ed. The special class caters to individual needs.*

A few teachers (2) commented they belong because they are here.

Yes, not a part in terms of mingling, but in the same sense that this is their school and they belong.

Yes, they feel they belong because they attend the school and they participate as much as possible.

Other teachers (8) reported their children feel a part of the school.

Yes, I think they feel they belong because they know they are free to take part in any extra-curricular activity as well as any general in-school activities. For example, they are part of the regular Friday afternoon assembly, they have the same playground equipment and are permitted to play as the rest. They have a common lunch hour with the rest of the school except for a shortened 15 minutes.

All the teachers and administration make a positive effort to ensure that they belong. For example, the special education children were initially not included in a spring tea and fashion show given by the home and school until word was sent back from the school that this was discrimination. On the whole, however, the home and school gives the program good support, especially financially.

Yes, they feel a part of the school. They are a close unit and are eager to participate in assemblies, outings, field trips. They are eager to integrate. They are an outgoing bunch and are eager to participate on the playground. They ask kids to play.

While other teachers (2) reported that very definitely their pupils feel as a part of the school.

Yes, very definitely, there isn't any attention drawn to my classroom becuase they aren't mine as I don't have a home room.

After the adjustment period, for sure yes. We do a lot of group activities, joke around with everyone and include everyone. The children are involved in planning.

Some teachers (8) reported their students did not feel part of the school.

Not as much because they live outside the district and come by bus.

> *The handicapped who aren't socially accepted because of their behaviour (toilette problems, hitting, severe speech problems, cerebral palsy characteristics) are not a part of the school. Appearance and severity of the problem is the key to whether they fit or not.*
>
> *No, because of the physical disadvantage of our setting. All our classes are grouped together on the third floor of our school.*
>
> *No, they don't feel a part of this school until they're nearly fully integrated into the school program. It's fairly understandable as they are pretty isolated until their behaviour allows them to integrate.*
>
> *Kids are all categorized as special education students e.g., the announcements are divided for regular and special education students.*

It was reported by one teacher of a Senior Transitional TMH class that her students feel no real commitment.

The next question was phrased as follows: *"Do the non-handicapped students accept your pupils as though they were 'really' a part of this school? Do they treat your students as though they belong in this school? Please comment."* It was reported by teachers (5) that non-handicapped students more readily accepted special education students who do not have severe visible or social handicaps.

> *They accept that they are a part of the school. This acceptance is generally better toward those who have no visible handicaps.*
>
> *Yes. They are not looked at. Only 2 are more observed because their behaviour is more acutely different.*
>
> *Most of them do. Sometimes they have trouble adjusting to a child that is socially noticeable, e.g., picks his nose.*

It was reported (2) that LD students are generally more accepted than EMH students.

> *The only feeling of being a part of the school is where reverse integration is occuring and the regular students go into EMH classes. They accept the LD students more than the EMH student because the EMH students aren't integrated into the regular classroom.*

> *LD students are generally more accepted than EMH students because they look and act normal.*

A few teachers (2) reported they were accepted because they were there.

> *I think so; I haven't heard anything to the contrary. I think they are accepted as part of the school, but as being different. They are physically a part of the school.*

> *Yes, the non-handicapped students accept them as being in the school. That's not to say that there aren't problems.*

Other teachers (4) commented they were accepted because they had common neighbourhood characteristics, received positive attention from teachers and administrators, and had good public relations promoted.

> *They come from a disadvantaged neighbourhood and generally the school has a lot of slow learners.*

> *They are not aware of any major differences because of the positive attitude of the teachers and administration.*

> *I think it is possible if it is helped along with good PR efforts. We have very poor behaviour towards them.*

> *Some students do if they receive necessary encouragement from their leaders and teachers.*

Teachers (3) reported students who were not accepted readily were those who were isolated due to the physical setting of the school or a bussing situation. Also those students who are labelled as special education, physically isolated and those who were tagged the special education student.

> *Yes, with reservation. Eight of the 11 stay for lunch and the non-handicapped students don't get that much opportunity to get to know the special education student. They don't have a clear understanding of the special education position in the school. There isn't any work done to prepare regular class attitudes and responsibilities toward special education.*

> *No, because they are bussed they are not a part of the school.*

> *No. Because they hear the descriptions they are aware of the special class; a class of bad kids. They use the special kids as a scapegoat (e.g., a special education kid stole my lunch). Education of regular kids required.*

Special education teachers were then asked, *"What generally is the attitude of the non-handicapped students towards the special class students? Please provide examples where possible."* It was reported by some teachers that the attitude of the non-handicapped students towards special class students was both negative and positive. Mentions of teasing behaviour were as follows:

1. *"The more severely handicapped are teased more often than the less handicapped."*

   Usually they do not but a small number are teased. The ones who are teased are usually the less capable.

   Teasing occurs most often with those least able to make social contact and control.

2. *"Only those who react or deserve it are teased."*

   Mild teasing and taunting. More towards the boys as they are more easily provoked.

   Some teasing as special education student is more vulnerable because they react more.

   I think it's safe to say that the kids in the adaptable class are treated the way they deserve to be treated. Even if we don't appreciate how regular class students behave, it's understandable.

   That depends on the child and more on social abilities than academic abilities. They tend to suffer if they are different socially. Because of the way we group, multi-aging, the regular children aren't aware of academic differences in other children.

   The special education student isn't teased any more than anyone else.

Mentions of positive and caring behaviour were as follows:

1. *"The handicapped kids who get involved are helped."*

   Generally, we have to help the non-handicapped to accept an adaptable kid. It's necessary for the integrating teacher to team up kids from the integrated class with responsible non-handicapped students and usually this starts a more positive behaviour.

I haven't noticed a missionary kind of spirit. The ones who are involved in out-of-class activities receive more positive and caring behaviour.

The kids that are more acceptable are those that do extra-curricular activities.

2. *"Some regular students are good to the handicapped students."*

To a minimal degree. I guess it occurs. They have friends who are quite concerned about what's going to happen to them.

Positive, caring behaviour is most often given to those who have an obvious physical handicap.

The regular class children are more helpful to the physically handicapped than to social problems or LD types. It's almost a pitying response initially.

3. *"Non-commital. Have not noticed anything extreme."*

I haven't noticed anything to the extreme. They have been quite accepted by the two rooms we join.

To a certain degree. There is no distinction as they have grown up together and the regular kids are used to it. I am speaking from 7 years experience.

4. *"In general, little positive and caring."*

Positive caring is not too evident.

Regular kids on the whole in this area don't really show concern about other children. We develop our own protective atmosphere.

The final question in this section was posed as follows: *"Within general school administration and organization, is your class given equal status with the regular classes? If not, could you provide examples to illustrate your answers?"* The special classes were given equal status with the regular classes. Examples to illustrate this are:

Yes, but with reminders. Sometimes they tend to be forgotten.

Yes, because all the special education students are in regular home rooms.

> *We have more freedom because we run our own programs, e.g., budget, books, etc.*

However, the special classes were not always given equal status with the regular classes. Examples to illustrate this are:

1. A number of teachers (4) indicated that budgeting was not on an equal footing with regular schools due to the structure of funding from "head office."

> *Within the school, the class is given equal status but due to different budgeting departments for regular and special classes, our class lacks funding for bus trips, etc.*
>
> *Special education operates under a special budget from downtown.*
>
> *You receive all funds from head office while all other classes are budgeted within the school. This leaves the administration helpless to put you on equal status.*

2. Five responses indicated that special student classes do not have equal status in the areas of timetabling, lunch hour, bussing, and announcements. Generally, they felt that they were at the lower end of the scale.

> *More supervision because of bus students and lunch hour by special teachers.*
>
> *We do our own timetabling and plug into the available time spaces on the master timetable.*
>
> *Intercom announcements are directed to regular students and then specifically to special education students.*
>
> *Scheduling for facilities and classes is done after the majority.*

3. Another two said that the system is not structured for the special classes.

> *I would say the class earns equal status; it's not given it. It does this through reciprocal arrangements. For example, in order for my child to take phys. ed. and French with the other children I take a group of low reading and low math. In order for them to have music I take a social studies group. It's been a lot of manipulation on my part. Regular teachers are now seeing that these kids are not dullards; they can cope.*

> *No. Much of the administration and organization is just not geared to the special programs.*

Integration in the Schools in which the Respondents Teach -- Summary

Special education teachers in the sample interviewed consistently reported that special education classes take part in four types of shared activities with non-handicapped students. These include: recess in the playground, general assemblies, concerts, and field trips. Noon hour activity, however, was often indicated as an area of concern to the special education teachers, and although field trips were available to all students, these were usually kept to a minimum.

In terms of individual students, the majority of special education teachers reported that most students took part in non-academic subjects. Only a few were integrated in the academic stream, based on individual selective criteria of social adjustment and ability to understand.

One-half of the teachers interviewed reported that school administrators and teachers did not have to make special arrangements to allow for school activities. The remainder reported special arrangements made by themselves, regular teachers, or in an interchange arrangement.

When asked if they felt that their pupils feel as though they are 'really' a part of the school, the teachers' responses fell into two groups; roughly one-half replied "yes," and one-half replied "no."

If the handicapping conditions displayed by the pupils were not severe, the teachers indicated that there was general acceptance of their pupils by the non-handicapped students in the school; however, there was no ready acceptance indicated.

Special education teachers reported that the attitude of the non-handicapped students towards special class students was both negative and positive. There were numerous mentions of teasing, and positive, caring behaviour had to be encouraged in most cases; however, both types of behaviour were reported as minimal. There was a general absence of extreme behaviour, either negative or positive, towards the handicapped.

Most respondents felt that their classes were given equal status with regular classes. If not, the reason given was that administration is simply not geared to the special programs.

Effects of Integration on Non-Handicapped Students. The beneficial effects on the non-handicapped students were reported as:

1. Integration provides an on-going educational program of understanding in the sense that some kids have problems in certain areas, but they can be accepted as they are and their differences are minimal.

2. Contact with handicapped students teaches the regular student to interact on the social level, to find ways of helping them naturally, and to accept differences evident in people in later life.

3. Students gain some self-understanding because they find that everyone has some short-comings, even themselves.

4. In some instances, regular students view special education students as happy in their own group and they don't think much about them.

The detrimental effects on the non-handicapped students were reported as follows:

1. Most teachers answered no detrimental effects or indicated, *"None that I know of."* Some teachers (2) felt they were not in a good position to judge accurately as they were usually not present in integrated settings.

2. One teacher observed modelling of unsatisfactory behaviour of community school students living in a rough area.

3. Handicapped students generally stick together and don't allow the regular students opportunity to 'really' get to know them.

4. Handicapped students at times disturb and frustrate regular students by talking a lot and displaying socially unacceptable behaviour.

5. Regular students lose some attention during class as handicapped students often get more attention.

Effects of Integration on the General Learning Environment. The beneficial effects on the general environment of school were reported as:

1. The experience develops tolerance and learning relationships between the students.

> *It provides the regular students with the opportunity to be more tolerant.*

> *It has opened up channels of discussion in academic areas such as social studies units for the purpose of fostering better relationships and understanding (insights).*
>
> *A reciprocal academic arrangement is beneficial in that the regular students are teaching the special education students and this serves as academic reinforcement for themselves.*
>
> *If you put children from special classes with moderate self-control into a regular group, they will model better behaviour.*

2. Students become aware of the skills the handicapped have to offer.

> *They're learning that my kids have certain normal skills that other children do not possess. They have a chance to shine. I have one disco dancer, a singer and an artist.*
>
> *Handicapped have things to offer. The exposure of the handicapped provides the regular kids with insights.*

3 There are incidental effects on the general learning environment, but there isn't any organization to enhance the general learning environment.

> *It often makes a regular class teacher see her bad ones in a better perspective!*
>
> *I don't see that the special student has any effect on the learning environment if he is selectively placed. If he is a problem, he shouldn't be here.*

The detrimental effects on the general school environment were indicated as:

1. The fact that handicapped students would be disruptive in the regular classes.

> *In every classroom you have kids who are lacking social control. If you put a special kid in this setting, the regular classroom kid will model his behaviour and become worse.*

2. A number of teachers (4) believed that the effect would not be detrimental.

3. Full integration of special students would be difficult to implement correctly.

> *Under the present system of careful selection there are no detrimental effects. It could be detrimental if full-scale integration were implemented without back-up help.*

4. One teacher indicated that fear of the students was a factor.

> *Teachers are afraid of special education students. Difficulties arise from these fears in integration attempts.*

Effect of Integration on Regular Teachers. When posed the following question, *"Do you find that the other teachers use you for consultation concerning some of their own students?"*, the majority (19) indicated that other teachers do not use the special education teacher for consultation concerning some of their own students. Any consultation is rare and is usually through incidental or casual staff room discussion. Specific consultation occurred very rarely.

The list question in this section read as follows: *"Has your presence, or the presence of the special class students, affected the regular teachers in other ways?"* Detrimental effects were indicated along these lines:

1. Several teachers (6) are concerned with the extra load imposed by the special student.

> *Because of integration practices, the regular teachers can be heavily overloaded. When you add 3 students to a regular class of 29, the teacher spends less time with her own regular class students. My students are just an extra load. It appears to be much harder on the regular teacher in a small school population as opposed to a large school. In a large school you can put one special education student in each regular class and this is more satisfactory.*
>
> *To compensate for integrating special students, teachers will send their difficult students for help in math and reading. Due to timetabling this often increases special classes to much past the limit of 1-13 students. This defeats the purpose of special classes.*

2. Teachers (3) are unsure exactly how to handle the special students.

> *Some of the teachers are uncomfortable with special education students because they are*
> *a) unsure how to communicate with them*
> *b) unsure how to handle them*
> *c) lacking in previous exposure to this type of student.*

> *We receive complaints on how to handle these kids. Teachers have to start being more aware of individual needs and differences.*

3. Better planning and timetabling required (2).

> *More in-depth planning time is required.*

> *Timetabling is a problem or they would be integrated more.*

The beneficial effects indicated by special education teachers were:

1. The teachers' discipline problems are alleviated as the problem students are sent to special classes.

> *It alleviates the teachers' discipline problems because I have most of these types.*

> *Regular teachers use my classroom for regular students who are behaviour problems. I talk with the child and set up a contract for better behaviour.*

2. Regular teachers are exposed to special student problems and can modify their teaching method with this in mind.

> *The regular teachers see how bad some students are and modify their attitude towards their own kids.*

> *It has helped them realize what other kinds of problems exist in the handicapped student.*

> *Teachers are more aware that there are services available to diagnose and place students who may need help. Makes teachers look more critically at students.*

Effects of Integration on Non-Handicapped Students -- Summary. When asked for positive, beneficial effects observed with respect to the non-handicapped students, most special education teachers indicated that awareness, understanding, acceptance, and tolerance is engendered. Most respondents did not perceive detrimental effects; however, some were not in a position to answer since they were usually not present in integrated settings.

It was found that regular teachers in general do not use special education teachers for consultation.

The respondents indicated that they found regular teachers to be unsure or hesitant when faced with special education students; however, there was an indication that this type of contact represents an "eye-opener" for most regular teachers, and provides them with insights.

Effects of Integration on the Special Class Students. Each teacher was asked to complete a checklist for each student in her/his class. They were asked to rate effectiveness of special class placement within a regular school in terms of ability to further the growth and development of the pupils in the areas listed.

The results which were obtained are reported in Table 2.

Effects of Integration on the Special Class Students -- Summary. Table 2 consistently indicates that the special class is considered superior or effective form of placement for handicapped students represented in this survey. Arithmetic skills, disciplined behaviour and the development of self-confidence and self-respect were most readily facilitated by placement in a special class. Special class placement was considered inferior for some pupils (between 15% and 21%) in the areas of general academic progress, reading ability, writing ability and aesthetic enjoyment. Further, the respondents considered that special class placement was somewhat irrelevant for developing aesthetic enjoyment (24% of students) and social acceptance from non-handicapped students (20% of students). Teachers rarely considered that special class placement was harmful for their students.

It must be noted that the analysis does not indicate the number or kind of handicapped students rated in this table. Some teachers were very consistent in their responses for all children with a similar handicap, e.g., visually impaired students. Consequently, the findings from this rating scale should be considered indicative of the effectiveness of special class placement, in general, rather than definitive for any particular form of handicap.

Future Directions, Desired Level of Integration. The first question posed in this section was, *"Do you think the amount of integration should be increased in Calgary schools?"*

Table 2

Ratings of Effects of Special Class Placement in a Regular School on Handicapped Students

	Number of Responses (N = 120)					
	Superior	Effective	Irrelevant	Inferior	Harmful	I don't know
Academic progress generally	56	36	8	20	--	--
Reading ability	36	55	4	18	--	7
Writing ability	36	46	6	22	--	10
Arithmetic	52	41	5	17	--	5
Ability to problem-solve	39	54	5	12	--	10
Language use, speech habits	40	51	12	8	--	9
Classroom work habits	50	32	4	15	2	17
General behaviour (discipline) in classroom	57	42	3	4	2	12
Expressions of self-confidence and self-respect	53	37	14	5	--	11
Emotional behaviour; awareness of feelings and needs of self and others	44	48	15	6	1	6
Social acceptance from other handicapped students	43	48	18	5	1	5
Social acceptance from the non-handicapped students	33	43	24	11	3	6
Behaviour and thinking leading to a realistic assessment of situations	41	50	12	10	1	6
Aesthetic enjoyment; responding to ideas and feelings in art, music, etc.	30	34	29	25	--	2
Attendance	46	48	18	2	--	6

With respect to moving classes out of segregated settings into the schools, the following reactions were obtained:

Those who were in favour (6) indicated:

> *Possibly, only for the physically handicapped who are emotionally and socially capable of handling it.*

> *I would like to see classes in regular schools, but I think each child has to be judged individually.*

> *Should move kids into regular settings whenever their behaviour allows this; especially when they are young. Rather than taking the 13 year old who has been in a special environment for years it is better to integrate when they are younger.*

Those who were not in favour (12) indicated:

> *Not those who are too low mentally to cope. They have come and gone back to the segregated setting. They are misfits in the special classroom.*

> *TMH, no. Because: 1. they work in their own program, 2. they are happy together, and 3. they have lots of facilities.*

> *There will always be a need for a certain child to be in a residential setting or segregated setting.*

> *That depends too much on the circumstances. I don't feel that any child should be moved out of the segregated setting if they're not ready nor into a class where the teacher has not had proper preparations made for her/him. But if the child is ready they should have the opportunity to integrate and not have to stick with that "special education" label. In this case integration should be increased.*

With respect to moving individual children into the classroom, most teachers (23) gave affirmative replies with some observations. The teachers felt that integration was desirable: when the child can cope; if the handicap is primarily a mild or moderate EMH, LD, PH or VI problem; if more support, better trained teachers, smaller classes and more planning time are available; and if placement depends on the selective assessment of each child rather than a handicapping category.

> *Partial integration of those EMH students whom the teacher feels could benefit from it.*

> *Physically handicapped if there are adequate facilities.*
>
> *EMH, the slow learner types if: 1) class size is low and 2) aide relief or volunteers are present.*
>
> *LD and EMH can be totally integrated with emphasis on: 1) more support, 2) better training for teachers, 3) smaller class size, and 4) more planning time.*
>
> *I think a child should be integrated wherever possible but needs a home room for academic subjects which would be a special class. The special class would be an advantage because: 1) a low enrollment, 2) good teacher qualifications, 3) good teacher experience, and 4) would provide slower individual programs.*

Fourteen teachers also made negative comments concerning moving individual children into a regular classroom. Integration in the classroom was thought generally undesirable for some TMH, LD and severely emotionally disturbed children. Some children who need one-to-one instruction or could not cope socially also need a segregated setting. Finally, the additional work load for teachers was mentioned as a negative factor for integrating children into the classroom.

> *If they think they can dump kids in, they are going back to the 50's; more support is required.*
>
> *Not those who can't look after themselves physically. In this case you need a full-time aide on a one-to-one basis.*
>
> *I do not recommend integration when the learning situation is strongly affected by either the handicapped student or the regular students' reaction toward him. There can be severe disciplining problems.*
>
> *Older TMH, no. Their chronological age and size are too big for the type of academic level they are working at. Academically they would fit into grade one or two art and music, but they are twice the size and there is a large age difference.*
>
> *Selective integration is: 1) more work for the regular teachers, both physically and emotionally, 2) causes over-population in the classroom, and 3) compounds problems.*
>
> *The teacher already has regular problems but has compounded problems with special education students.*

Future Directions, Desired Level of Integration -- Summary. Few special education teachers were in favour of moving special classes out of segregated settings into the schools, and these, with reservations and qualifications. Most respondents were not in favour, indicating that they felt a need for the continuance of segregated settings for most of these children.

On an individual basis, when asked whether integration should be increased with respect to moving individual children into the classroom, the responses were not generally negative (23). Most felt that LD and EMH children could be moved into the classroom individually. Nevertheless, a good number of respondents (14) were not in favour for some children.

General Support for Increased Integration. Most special education teachers felt that integration from the special class to the regular class should be increased, but only under certain conditions. The most common conditions mentioned were: more planning time; smaller class size; better teacher training; individual programming; and careful placement of the student. Teachers gave prime importance to the careful selection of the student placement. They also emphasized that students should be considered as individuals according to their social and emotional adjustment; academic abilities; and physical size and chronological age. The only opposition to increased integration was a concern for *"full-stage dumping"* without careful consideration to the above factors.

Most of the teachers felt segregated settings will always be necessary for children with certain degrees of handicapping conditions. The following types were generally agreed on:

1. severely physically handicapped whose appearance is noticeably outstanding, and who cannot be accommodated by the physical lay-out of the school;

2. severely emotionally handicapped "who cannot cope with a regular class in larger groups and need one-to-one attention;

3. severely mentally retarded, "who cannot learn without one-to-one attention."

Desired Forms of Integration. What form should integration take? The form of integration favoured by the majority of teachers was partial rather than complete integration of handicapped students into the regular class. Full integration was suggested to be possible only when the handicap was less severe.

Partial integration took two forms:

a) One form is that the handicapped child would spend only a portion of the day in the regular classroom. The regular classroom in this situation would serve as the home room. Many teachers suggested that the balance of the day would be spent in a resource room setting where the special academic needs of the child could be met in a smaller group.

b) Other teachers felt that the children would be integrated into regular classrooms during part of the day; their special education classrooms would serve as their home room.

In order for this partial integration to be implemented, teachers expressed the need for itinerant teachers, teacher aides, volunteers and additional resources.

Two forms were suggested for full integration. First, it was suggested to be possible with some children only when the handicap was less severe. However, teachers indicated this could only be successfully followed through with additional support staff; itinerant teachers, volunteers and teacher aides. As in other areas, the form of integration which would be appropriate would have to be considered on an individual basis for each child.

A second form of full integration mentioned by a special education teacher was a complete integration among multi-aged groups with the method of an individualized approach to learning implemented through team teaching in an open area setting. Multiple resources and personnel were used in the respondent's suggested program.

Benefits of Integration. The benefits of integration generally can be grouped according to four major areas:

1. social interaction with regular students;

2. opportunity to function in a normal setting;

3. opportunity to function within children's community schools; and

4. reduction of special education stigma.

Generally, social interaction with regular students was felt to be beneficial in most situations. However, one concern mentioned, dealt with a negative effect of interaction. *"I am concerned with the social adjustment of the child. For example, take the case of a student I had who was aware that he was different, but was not bright* *enough to do anything about it and became suicidal. He was placed back into a segregated setting for his own good."*

The opportunity to function in a normal setting had relevance to the present and future. In the present, it provided opportunity, *"to identify certain abilities they unknowingly possess by observing regular students. Also, it provides the student with the opportunity for exposure to a real and not a protective environment which is preparation for the future."*

Another major concern was the opportunity to function in the child's community school; it was felt to be important to a child's feeling of belonging. The benefits reported were: more opportunities to form community friendships; more easily able to participate in extracurricular activities; and more able to feel a part of her/his school.

Reducing the stigma of the special education label is enhanced by integration. To begin with they are not classified as being different, and secondly, *"regular students have the opportunity to observe that in spite of a handicap, special education students can do things."*

The positive effects on regular children provide more opportunity to develop self-understanding as well as understanding of the handicapped child. *"The regular students could develop a more realistic acceptance of handicapped people in general. Awareness that we all have short-comings, strengths and weaknesses, relates to self-understanding."*

Definitional Problems. Most teachers found it difficult to define a standard definition of "handicapped." Due to the variety of answers, it was difficult to arrive at a general definition. However, one definition that generally included elements most often mentioned was *"Those students with physical, emotional, social and academic limitations which affect their ability to learn at a 'normal' pace."*

Resources Needed to Support Teachers in Integrated Classrooms. If the amount of integration is increased, it was unanimously felt that more resources should be provided for regular teachers. The three resources which were given priority, listed according to importance were: reduced class size (13); teacher aides (11); and in-service training and workshops (8). Additional support in the form of increased clerical assistance (3); teaching materials (6); and teaching equipment (2), were also recommended.

The choice of resources seemed to be dependent upon resources already available in the school. For the most part, the responses seemed to indicate there was some need for extra provisions in these areas.

Regarding the special resource consultants, it was generally felt an increase was necessary in terms of time spent in the school.

Specific reference was made to architectural and design modifications to classrooms regarding physically handicapped students, e.g., ramps, desks, bathroom facilities, etc.

Need for Administrative Support in Integrated Schools. If the amount of integration was increased, teachers favoured increased support from school administrators. They stated that moral support, e.g., total backing of teachers, total backing of program; modelling of a positive attitude; a knowledgable attitude, meaning, "the individual should be more informed about the special education student"; understanding of various problems. "Bending the rules to accommodate these kids"; and smooth, fair organization in terms of equality within the school, were all essential.

Another role teachers see administrators performing was acting as a liaison to central office in regards to needs of the school, e.g., staffing, personnel, materials, and the promotion of better communication between parents and teachers concerning the program.

Factors that would Promote Successful Integration. The major factors mentioned by the majority of teachers which would most likely promote successful integration are:

1. A positive teacher attitude in terms of accepting the integration program and desire to accept the student and his handicap. Also, teacher empathy on a one-to-one basis was considered important.

2. Careful and selective placement of the student on an individual basis according to capabilities and coping behaviour.

3. Teacher education pertaining to the nature of handicapped children and how to teach and relate to the handicapped. "If teachers are educated they are more receptive to integration." It also serves to "reduce anxiety of the unknown."

The most mentioned factor that would cause difficulty in promoting successful integration was a negative teacher attitude. It was emphasized that forcing the concept of integration upon the unaccepting classroom teacher would lead to a detrimental effect. It was commented that this could lower teacher morale and have a resulting detrimental effect on the handicapped student.

Teacher Assessment of Placement Procedures. There was a significant difference between those teachers familiar and unfamiliar with the diagnosis, assessment, and placement procedures used by the Calgary Board of Education (twice as many were informed). Those teachers involved in placement reported working with a varied number of students ranging from 40 to 160. Findings showed there was no agreement to indicate whether the procedures were adequate or inadequate (50% yes, 50% no).

The reported areas of inadequacies were:

1. Decisions made by consultants who weren't familiar with the students;

2. Testing done by psychologists who are strangers to the children. This can sometimes affect the outcome;

3. Lack of reassessment of original placement a year or two later;

4. Lack of more background information;

5. Long waiting lists resulting in children not being assessed as quickly as they should be. Teachers reported this stems from crowded facilities and large caseloads of the consultants;

6. Lack of early assessment in terms of age. Presently they are being assessed at age eight;

7. Lack of case conferences;

8. Placement of children in inappropriate school environments where she/he models inappropriate behaviour; and

9. Handicap levels not being well-defined.

OBSERVATIONS

1. Students in the special classes of the teachers interviewed were primarily moderately or mildly handicapped and had been drawn from the school population. There was some reluctance on the part of the special education teachers to categorize their students.
2. Special class students generally shared the following activities with non-handicapped students; recess in the playground, general assemblies, concerts, and field trips. Opportunities to share noon-hour activities were of particular concern for special class teachers.

3. Individually, special class students were most often integrated for non-academic subjects. Some selective integration occurred depending upon the social adjustment and comprehension of the child.

4. Half the teachers indicated that few special arrangements were made by school administrators to accommodate integrated activities. The others noted interchange of staff and accommodation by regular teachers to facilitate integration.

5. The social integration of the handicapped students was generally evident as long as the conditions displayed by handicapped students were not severe. While there is evidence of teasing and caring behaviour, neither reaction was considered extreme.

6. The beneficial effects of integration for non-handicapped children included increased awareness, understanding, acceptance and tolerance for the handicapped child. Teachers felt they did not directly observe detrimental effects and consequently, could not comment about current integrated settings.

7. Special education teachers were rarely consulted by regular teachers concerning assistance for handicapped children.

8. Many regular teachers appeared unsure and hesitant about including handicapped students in their classrooms.

9. The special class placement of handicapped children was considered most effective for encouraging academic skills, disciplined behaviour and self-confidence and self-respect.

10. The rating of all students (120) in the sampled special education classes indicated that the placement was inferior for less than 21% of these students. The placement was considered somewhat irrelevant for developing aesthetic awareness and social acceptance by non-handicapped students (24% and 20% respectively).

11. A majority of the special education teachers were not in favour of moving special education classes out of segregated settings into the schools. The loss of special facilities and resources and the inability to adapt to the students' needs were cited as the main reasons for maintaining segregated settings.

12. On an individual basis, special education teachers were generally supportive of integrating individual children for specific activities, given appropriate resources. Nevertheless, many teachers felt there would always be a need for segregated settings for severely physically, emotionally and mentally handicapped students.

13. The form of integration most supported by special education teachers was a partial integration that utilized a resource room model to supplement regular activities.

14. The benefits of integration were considered to be the opportunities for social interaction with regular students; for functioning in a normal setting; to participate in the community school; and to reduce special education stigma.

15. The conditions deemed essential to facilitate increased integration included more planning time, smaller classes, better trained teachers, individual programming and careful student placement.

16. Regular teachers would require reduced class sizes; teacher aides; clerical assistance, teaching materials and equipment and in-service training workshops if integration practices were increased. The support of administrative personnel was also considered necessary.

17. Ultimately, the positive attitudes of regular teachers, the careful selection and placement of handicapped students on an individual basis, and teacher education would be fundamental factors needed to promote successful integration.

18. The assessment by special education teachers of the Calgary Board of Education's placement procedures were inconclusive. Problems in these procedures were mentioned by only a minority of the teachers.

Report #8: STUDENTS, GENERAL POPULATION

A Report of Teacher Ratings of Selected Student Behaviors in a Random Sample of Schools

Concerning: Special Learning Needs

What is the frequency of occurrence of selected problem behaviors in the total student population?

TABLE OF CONTENTS

Page

Introduction 8-3

Methods 8-3
  Rationale and Objectives 8-3
  Data Sources 8-4
  Survey Design 8-4
  The Instrument 8-4
  The Sample 8-4
  Data Collection Procedures 8-4
  Data Analysis and Reporting Procedures 8-5
  Reporting Format 8-5
  Limitations of the Data 8-5

Presentation of the Findings 8-6
  Sample Size and Return Rate 8-6
  Frequencies of Behaviors 8-8

Summary and Discussion of the Findings 8-12

APPENDIX A: Behaviors Exhibited by Students, in Raw Frequency Form 8-14

LIST OF TABLES

Page

Table 1: Number of Teachers Returning Usable Checklists and Number of Students Rated, by Level of School 8-7

Table II: Number of Teachers Returning Usable Checklists and Number of Students Rated, by Division Level 8-8

Table III: Frequency of Occurrence of Student Behaviors, by Division of Student, in Percentages of Students 8-9

Table IV: Condensed Version of Table III, with Special Class Students and Percentages of Less than 4% Omitted 8-11

Table V: Condensed Version of Table IV, Showing the Nine Most Frequent Behavior Characteristics and Omitting Kindergartens . . 8-12

Report #8: Students, General Population

What is the frequency of occurrence of selected problem behaviors in the total student population?

INTRODUCTION

The proponents of integration have argued that integration of severely handicapped children into the regular classroom will result in detection of, and increased assistance to, mildly or borderline handicapped children. In an attempt to investigate whether there are significant numbers of children in this borderline category, teachers in a random sample of Calgary schools were asked to indicate whether or not their students exhibited a set of behaviors judged to be handicapping. Behaviors were assumed to be indicative, not necessarily of a major handicap, but rather, of individual characteristics which create learning problems in a normal classroom. Results indicate that the problem behaviors identified with the most frequency were inability to read at grade level, and inability to maintain concentration. These behaviors are said to exist in about 15% of elementary students, and in 6-10% of secondary students.

METHODS

Rationale and Objectives. It has been argued that integration of severely handicapped children into regular classrooms will produce benefits that spill over to borderline handicapped children. With the assistance from the specialized resources provided for the severely handicapped, the regular teacher will be more able to detect and assist the mildly handicapped. The individualization of instruction required for the severely handicapped will only serve to increase this effect.

The component of the study considered in this Report was designed to test the assumption that the regular classrooms contain borderline handicapped who need assistance, and to obtain estimates of their numbers. The following objective was defined for this portion of the study:

8-4

To estimate the incidence of selected behaviors among regular classes of school children, where such behaviors are assumed to imply a need for special learning assistance.

Data Sources. The data was collected from ratings provided by regular teachers on their own students. All teachers in a random sample of Calgary schools were asked to respond.

Survey Design. Thirty-one schools from the total regular schools in the Calgary public school system were selected at random. All teachers in these schools were asked to respond to the survey. The total number of regular schools is 196. Twelve schools were removed from the sampling frame since they had less than 100 students each.

The Instrument. The instrument used to accomplish this portion of the study was entitled "Screening Checklist of Student Behaviors (Teacher Assessment)". The instrument took the form of a two-page foldout with a list of fifty (50) behaviors down the left-hand side. Behaviors were discrete, behavioral characteristics, and were selected because they were thought to be indicative of various handicapping conditions. For example, "Rubs or brushes at eyes" is indicative of visual impairment, "Watches face of speaker intently" is indicative of hearing impairment, and "Has difficulty grasping concepts of number, space and time" may indicate a learning problem. Space was provided on the form for students' names. Teachers were instructed to "... indicate only those behaviors that students exhibit frequently". The ratings on the form, therefore, indicate (frequent) presence or absence of a behavior. Degree of frequency was not rated.

The instrument was developed with the assistance of personnel from Student Services of the Calgary Board of Education. Items had face validity as indicators of handicapping behaviors. Pretesting was done in 6 schools to correct wording difficulty with items. No independent validation was performed on the instrument.

The Sample. The sample used was the same as that identified in Report #4, Regular Schools (Calgary).

All Calgary schools were stratified according to level. Categories used were elementary, junior and senior, with multi-level schools reclassified according to level with the larger numbers of pupils. Schools with less than 100 pupils were dropped from the population. Random selection was produced to obtain a sample of 21 elementary schools, 7 junior high schools and 3 senior high schools. These numbers are 18-20% of the totals in their respective strata, with the small schools removed. If the small schools are added back into the population, the sample size becomes 17% overall.

Data Collection Procedures. Principals were contacted initially by an individual representing the Canadian Institute for Research. The Checklists were delivered at that time, along with the School

Self-Study Form (see Report #4). Principals were asked to distribute the checklists and declare a certain time at which each teacher would record all the names of students in his/her room at that time. This method would ensure that each student was rated once, and only once, by a teacher. Checklists were delivered two to three weeks before the Easter vacation. Most principals agreed to arrange for their teachers to return the forms before the vacation. A few held them until after the Easter period.

Data Analysis and Reporting Procedures. The checklists were scanned and recorded as they arrived in the office. In a few cases, it was necessary to phone back the school if a teacher had forgotten to enter grade level on the checklist. Data was subsequently keypunched, verified and transferred to tape for computer analysis with the SPSS package.* Overall frequencies were calculated, after which the total data set was broken down into seven groupings: Kindergarten (Early Childhood Services), Grades I-III, Grades IV-VI, Grades VII-IX, Grades X-XII, Special Class Elementary, and Special Class Junior High. Frequencies for all items within these seven groupings were then computed.

Some checklists were returned without grade or school identification. These checklists were discarded from the analysis as they could not be assigned to any of the groupings.

Reporting Format. The following section, Presentation of the Findings, has two sections. The first shows return rates for each grouping of students. The second shows frequencies of individual items in percentage form. The frequencies in raw numbers are reported,and are attached in appendix form at the back of the report. The final section, Summary and Discussion of the Findings, highlights major findings and interprets them in light of data limitations.

Limitations of the Data. It became apparent very soon after distribution of the checklist that teachers did not generally like it. There were objections raised to the use of student names, which was seen to risk confidentiality, and to the use of negatively-phrased items, which was seen to contradict current efforts among teacher organizations to promote positively-directed thinking. Several principals phoned the research office to represent the concerns of their teachers.

Principals were assured that confidentiality of the information would be maintained, and that the intention in using negativelyslanted items was to identify conditions for which teachers needed help. Approximately 60% of the teachers did eventually return checklists, but some undoubtedly did so under coercive pressures. To all appearances, the data, from the elementary teachers in particular, has not been reduced in validity from these factors. Data quality appears high; where resistance to the study has likely affected returns was in the return rate itself. If teacher attitudes had been different, the return would likely be higher than 60%. However, the possibility of response distortion must be considered.

---

*Nie, N.H., C.H. Hull et al. Statistical Package for the Social Sciences, 2nd Edition, McGraw-Hill, 1975.

A second problem emerged, in particular at the secondary (junior and senior high) levels. Most secondary teachers in Calgary teach subjects rather than classes. The students therefore rotate from one teacher to another, and one teacher may teach as many as 200 students throughout the year. The secondary teachers often do not know their students as well as the elementary teachers do, and concern was expressed in this regard. Discussion with secondary school principals on the matter would indicate that, while the ratings provided are probably valid so far as they go, they are actually underestimates. Many manifestations of handicapping behaviors may have gone unrated because the teacher did not feel him/herself knowledgeable enough to provide a valid rating.

The decision has been made to report and make use of this data, despite the difficulties encountered in gathering it. Lack of appropriate validation procedures make the data inappropriate for use in identifying individual "handicapped" students. The form of analysis presented does not lead to conclusions about individual students. However, if one assumes that school teachers generally can and will identify characteristics of their pupils accurately, the data can be taken as indication of gross-level measurement of characteristics of the general population of students. Further, at the secondary levels, they probably represent underestimates of handicapping characteristics.

In the Main Report of this study, which synthesizes all the supportive material from this and the other sub-reports, the conclusions drawn from the checklist data will be examined for correspondence with opinions provided directly by principals and teachers.

PRESENTATION OF THE FINDINGS

Sample Size and Return Rate. As explained in the above Methods section, the original sample of schools numbered 31, or 17% of the total school population of Calgary. All teachers in these schools were asked to rate one class of students, in order to produce a single rating on every pupil in the school.

One school of the sample of 31 did not return any checklists. Therefore, at least some teachers from 30 of the 31 schools returned completed checklists to the research office. A total of 389 teachers responded, and ratings were received on a total of 10,204 pupils. Twenty-eight teachers did not provide adequate information (grade level or school name) for the forms to be used. These were discarded, bringing the total of usable ratings down to 9,438 students. In addition, some students names were crossed off lists, indicating a refusal to rate because of lack of knowledge of the student (new pupils, etc.). Three hundred and sixty-nine student names were struck for this reason bringing the student total farther down to 9093. Table I below shows the return rates for the various levels of teacher and pupil.

Table I

Number of Teachers Returning Usable Checklists and Number of Students Rated, by Level of School*

	School Level		
	Elementary	Junior	Senior
No. of Teachers[1] in Sample	336	155	206[2]
No. Responding	162	106	90
% Return	48%	68%	44%
No. of Students in Sample	6516	3016	4183
No. Rated	4246	2784	2063
No. Refused Rating	48	206	91
% Rated	65%	92%	49%

*Statistics on population figures were provided by the Calgary Board of Education. The student count is as of September 1977.

[1] "Teachers" is defined as certificated teaching personnel. Principals and librarians are included in this figure. The actual return rate is higher than shown.

[2] One of the schools classified as "senior" is in fact a combined junior-senior school. Teachers in this school are not defined as exclusively "junior" or "senior". An estimate of ¼ of the teachers was subtracted out of the population figure, since about ¼ of the students are junior high level.

The fact that the percentage return of students is higher than the percentage return of teachers within the three levels reinforces the statement in footnote 1 that the percentage figures describing teacher returns are low. Some of the "teachers" do not in fact have a home room of students.

At the junior high, number of students rated is a very high percentage of total (over 90%). Approximately 1/2 of the senior high school students and 2/3 of the elementary students were rated.

If the School Level of rated students is broken down even further into three-year divisions, the following distribution results:

Table II

Number of Teachers Returning Usable Checklists and Number of Students Rated, by Division Level

	No. of Teachers	No. of Students Rated	No Refused Rating
Division I: Grs. I-III	78	1961	10
Division II: Grs. IV-VI	74	2048	36
Division III: Grs. VII-IX	104	2765	205
Division IV: Grs. X-XII	90	2063	91
Kindergarten	8	213	2
Special Class: Elementary	2	24	0
Special Class: Junior High	2	19	1

The highest number of refusals to rate are at the junior high level. This is congruent with the observation that the secondary teachers generally had the most difficulty in rating students.

Frequencies of Behaviors. Table III below presents the frequencies of occurrence for all 50 behaviors on the list. Frequencies are presented for each of the seven groups shown in Table II. Table III presents the frequencies in percentage form to facilitate comparison among groups. The raw frequencies are shown in Appendix A at the back of this report.

A variety of behaviors were added by the teachers under the "Other" category. 38 additions were made, indicating an addition by the teacher for about 0.4% of the students. Of the 38, 20 were descriptions of a physical impediment or handicapping condition (e.g. neurological damage, amputation, retardation, etc.). Four students were identified as non-English speaking natives. Two were described as having troublesome home backgrounds, three were described as frequently absent due to sickness, and the remaining nine were characterized by different behavior problems (e.g. works slowly, rude behavior, easily led into trouble).

Table III

Frequency of Occurrence of Student Behaviors, by Division of Students in Percentages of Students

	Division						
Total Number of Students Rated	Grade I-III 1961	Grade IV-VI 2048	Grade VII-IX 2765	Grade X-XII 2063	Kinder-garten 213	Special Elementary 24	Special Junior High 19
1. Complains of aching or burning eyes	1.02	0.6	0.3	0.2	0.5	4.2	21.1
2. Is easily fatigued	4.3	3.0	1.3	1.9	4.2	12.5	21.1
3. Acts unusually timid, inhibited, fearful	2.9	2.5	2.6	2.2	11.7	25.0	36.8
4. Speaks in extremely loud or soft voice	7.2	6.5	4.4	4.0	12.2	20.8	26.3
5. Uses immature language	3.3	2.9	1.7	2.0	7.0	95.8	42.1
6. Has an unusual discrepancy between written ability and oral expression	3.7	1.3	1.0	1.4	1.4	37.5	94.7
7. Performs below grade level in arithmetic	7.0	12.4	5.9	3.4	6.1	66.7	94.7
8. Rubs or brushes at eyes	1.0	1.0	1.1	0.2	0.9	20.8	21.1
9. Has physical conditions which interfere with normal movement	0.4	0.4	0.0	0.2	1.4	41.7	0.1
10. Destroys property	1.5	2.3	0.6	0.0	1.4	4.2	15.8
11. Often asks to have words or questions repeated	5.0	5.3	3.0	2.7	4.2	4.2	63.2
12. Has immature or very different speech patterns	3.2	1.8	0.6	0.6	8.0	75.0	36.8
13. Exhibits overactive, uncontrolled, impulsive behavior	6.2	6.1	4.0	1.3	8.0	41.7	78.9
14. Performs below grade level in reading	14.5	18.0	6.5	6.2	5.6	50.0	89.5
15. Squints or peers at written materials	1.2	1.5	1.6	0.4	0.9	8.3	10.5
16. Shows poor coordination in large muscle activities	2.3	2.2	1.2	0.3	4.7	54.2	15.8
17. Is disobedient or defiant	4.0	4.2	2.2	1.1	6.6	20.8	57.9
18. Appears to hear some things and not others	3.4	4.3	2.8	1.6	8.5	50.0	31.6
19. Stutters or stammers	1.5	1.1	1.1	0.3	3.3	4.2	31.6
20. Achieves lower than ability tests predict	2.1	4.2	1.7	0.2	0.9	45.8	-
21. Performs below grade level in spelling	8.9	16.7	6.0	4.4	-	58.3	89.5
22. Complains of headaches	1.4	1.3	0.7	0.5	-	-	26.3
23. Exhibits very poor balance	0.7	0.5	0.5	0.1	4.2	41.7	10.5
24. Exhibits explosive and unpredictable behavior	2.3	2.9	1.1	0.5	4.2	20.8	88.4
25. Appears to daydream frequently	8.5	7.1	4.0	2.7	8.5	25.0	26.3
26. Inflexible; cannot shift responses	1.0	1.6	1.0	0.5	3.8	37.5	84.2
27. Has difficulty organizing thought processes and/or work	4.8	7.8	5.8	4.1	5.2	66.7	78.9
28. Watches face of speaker intently	0.8	1.2	0.6	0.9	3.3	25.0	26.3
29. Is easily distracted, lacks effort and perseverence	14.5	14.2	9.4	7.9	18.8	70.8	88.4
30. Shows unusual difficulty with fine motor skills (eg., writing, tying shoes)	4.0	2.8	0.8	0.3	8.5	45.8	10.5
31. Has unusual (severe) health problem	0.6	1.1	0.7	0.7	2.3	8.3	26.3
32. Has difficulty grasping concepts of numbers, space and time	3.7	5.0	2.2	0.9	8.9	87.5	89.5
33. Has difficulty following verbal directions	5.3	4.5	3.3	1.5	8.0	50.0	94.7
34. Is a bully, picks on others	2.5	2.8	1.3	0.4	2.3	4.2	57.9
35. Shows poor memory	3.2	6.3	3.8	1.6	6.1	50.0	94.7
36. Writes in a cramped, crowded, and/or laborious manner	3.9	3.7	1.2	0.4	0.9	33.3	21.1
37. Lies, cheats, or steals	3.1	3.4	0.8	0.0	3.8	25.0	31.6
38. Follows oral, but not written, directions	1.7	2.5	0.7	0.2	-	62.5	94.7
39. Is a loner	2.2	3.2	2.6	1.9	8.0	25.0	31.6
40. Is unable to tell a comprehensible story	0.9	1.3	0.3	0.4	4.2	66.7	36.8
41. Is unable to work independently	5.1	6.3	2.3	2.1	3.8	41.7	42.1
42. Reverses letters, eg., b a s d	9.4	1.6	0.7	0.0	-	33.3	21.1
43. Uses cane, crutches, wheelchair, prosthesis, or other orthopaedic device	0.1	0.1	0.0	0.0	0.5	4.2	-
44. Has unusual speech patterns	1.3	0.8	0.2	0.0	7.5	45.8	26.3
45. Lisps	2.0	1.0	0.4	0.0	3.3	8.3	10.5
46. Exhibits nervous tics or mannerisms	1.6	1.4	0.5	0.3	2.8	4.2	15.8
47. Lacks effort and perseverence	7.9	9.8	6.2	5.9	6.1	33.3	73.7
48. Is blind	-	-	0.1	-	-	-	-
49. Is deaf	0.2	0.1	0.1	-	-	-	-
50. Other (specify)	0.8	0.9	0.0	0.5	4.2	37.5	-

Inspection of Table III indicates that the Special class students show much higher rates of behavior characteristics generally than the regular students. This is to be expected from students who are presently being taught in segregated settings. Occasional differences on specific items between the two levels of special classes, elementary and junior, can be explained by the fact that the elementary students included one class of Trainable Mentally Handicapped, whereas the junior high students were all in Educable special classes.

The highest single percentage shown in the table is 18.8%, with eight other single percentages at more than 10% (excluding special class data). Many of the percentages are down to 2% or less. Table IV following condenses the information presented in the previous complete Table III by omitting the special class students and by displaying only percentages of 4% or greater. Any item for which no percentage was greater than 4% is omitted from the table.

Inspection of Table IV indicates that a number of the items show levels of frequency at the kindergarten level which do not carry into grade school. Three of these items relate to speech patterns, and others relate to muscle coordination and to behavior in groups. These items connect naturally to the developmental level of the kindergarten child, and biological maturation likely explains the absence of these behaviors in grade school.

The reader will notice that most of those items which show 4% or greater frequency through grade school show a decreasing frequency towards the higher grade levels. Three explanations could be proposed to explain this observation: that secondary teachers did indeed provide underestimates of behaviors, as proposed in the Methods section; that the behavior problems have been resolved either through maturation or through corrective action; or that the students in question are gradually dropping out or moving into vocational programs (the vocational secondary schools in Calgary were not included in the sample). The data do not allow differentiation among these three alternative explanations.

The information in Table IV is now further condensed in the final Table V, which lists only those items for which at least three of the four divison levels show a frequency of 4% or more. Kindergarten students are omitted from this table.

(Students)

Table IV

Condensed Version of Table III, With Special Class Students and Percentages of Less Than 4% Omitted

Item	Division				
	Grade I-III	Grade IV-VI	Grade VII-IX	Grade X-XII	Kindergarten
2. Is easily fatigued	4.3%	-	-	-	4.2%
3. Acts unusually timid, inhibited, fearful	-	-	-	-	11.7%
4. Speaks in extremely loud or soft voice	7.2%	6.5%	4.4%	4.0%	12.2%
5. Uses immature language	-	-	-	-	7.0%
7. Performs below grade level in arithmetic	7.0%	12.4%	5.9%	-	6.1%
11. Often asks to have words or questions repeated	5.0%	5.3%	-	-	4.2%
12. Has immature or very different speech patterns	-	-	-	-	8.0%
13. Exhibits overactive, uncontrolled, impulsive behavior	6.2%	6.1%	4.0%	-	8.0%
14. Performs below grade level in reading	14.5%	18.0%	6.5%	6.2%	5.6%
16. Shows poor coordination in large muscle activities	-	-	-	-	4.7%
17. Is disobedient or defiant	4.0%	4.2%	-	-	6.6%
18. Appears to hear some things and not others	-	4.3%	-	-	8.5%
19. Achieves lower than ability tests predict	-	4.2%	-	-	-
21. Performs below grade level in spelling	8.9%	16.7%	6.0%	4.4%	-
23. Exhibits very poor balance	-	-	-	-	4.2%
24. Exhibits explosive and unpredictable behavior	-	-	-	-	4.2%
25. Appears to daydream frequently	8.5%	7.1%	4.0%	-	8.5%
27. Has difficulty organizing thought processes and/or work	4.3%	7.8%	5.8%	4.1%	5.2%
29. Is easily distracted, lacks effort and perseverence	14.5%	14.2%	9.4%	7.9%	18.8%
30. Shows unusual difficulty with fine motor skills (eg. writing, tying shoes)	4.0%	-	-	-	8.5%
32. Has difficulty grasping concepts of numbers, space, and time	-	5.0%	-	-	8.9%
33. Has difficulty following verbal directions	5.3%	4.5%	-	-	8.0%
35. Shows poor memory	-	6.3%	-	-	6.1%
39. Is a loner	-	-	-	-	8.0%
40. Is unable to tell a comprehensible story	-	-	-	-	4.2%
41. Is unable to work independently	5.1%	6.3%	-	-	-
42. Reverses letters, eg. b a s d	9.4%	-	-	-	-
44. Has unusual speech patterns	-	-	-	-	7.5%
47. Lacks effort and perseverence	7.9%	9.8%	6.2%	5.9%	6.1%

Table V: Condensed Version of Table IV, Showing the Nine Most Frequent Behavior Characteristics and Omitting Kindergartens

Item	Division			
	Grade I-III	Grade IV-VI	Grade VII-IX	Grade X-XII
14. Performs below grade level in reading	14.5%	18.0%	6.5%	6.2%
29. Is easily distracted, lacks effort and perseverence	14.5%	14.2%	9.4%	7.9%
21. Performs below grade level in spelling	8.9%	16.7%	6.0%	4.4%
7. Performs below grade level in arithmetic	7.0%	12.4%	5.9%	-
47. Lacks effort and perseverence	7.9%	9.8%	6.2%	5.9%
25. Appears to daydream frequently	8.5%	7.1%	4.0%	-
27. Has difficulty organizing thought processes and/or work	4.8%	7.8%	5.8%	4.1%
4. Speaks in extremely loud or soft voice	7.2%	6.5%	4.4%	4.0%
13. Exhibits overactive, uncontrolled, impulsive behavior	6.2%	6.1%	4.0%	-

The outstanding items, at all grade levels, are "Performs below grade level in reading" and "Is easily distracted, lacks effort and perseverence". At the elementary levels, approximately 15% of students are said to exhibit each of these two characteristics. The percentage is lower at the secondary levels. Between 6% and 16% of students, at the various grade levels, are said to perform below grade level in arithmetic and spelling. Daydreaming is indicated for about 7-8% of the elementary population, and uncontrolled behavior for about 6% of the same group. Between 5% and 8% of students at all levels are said to find difficulty in organizing thought processes and/or work.

SUMMARY AND DISCUSSION OF THE FINDINGS

Results indicate that nine of the list of items presented to teachers are said to occur frequently in more than 4% of the regular student population. Those items are:

- performs below grade level in reading
- is easily distracted, lacks effort and perseverence
- performs below grade level in spelling
- performs below grade level in arithmetic
- lacks effort and perseverence
- appears to daydream frequently
- has difficulty organizing thought processes and/or work
- speaks in extremely loud or soft voice
- exhibits overactive, uncontrolled, impulsive behavior

Since teachers chose to write in very few behavior characteristics in the "Other" category provided, we may assume that the list presented to them was an adequate representation of student behavior characteristics. The two items "Performs below grade level in reading" and "Is easily distracted, lacks effort and perseverence" are said to each characterize about 15% of the elementary population and 6-10% of the secondary population.

The issue of possible bias in the data must be considered. These returns represent a 2/3 return, approximately, from a 20% sample of the various Calgary populations. The number of students rated is about 13% of the total in the Calgary public system. Informal contact with school personnel would indicate that considerable motivation for non-response came from resistent attitudes towards study methodology. The extent of bias in the study will therefore depend on the extent to which student behavior, and therefore student ratings, are reactive. In other words, if student behaviors rated are highly dependent upon response to individual teacher, the data suffers in validity due to non-response. If the student behaviors are relatively independent of response to individual teacher, than the data can be considered to be a valid representation of Calgary students. Evidence in the data leans towards the latter interpretation. The items with high rating, eg. "Performs below grade level ..." would seem in a face sense to be independent of strong teacher influence. For reasons explained in the Methods section of this report, it seems likely that the ratings provided by junior and senior high teachers are an underestimate of actual frequency.

It can be asserted, then, that approximately 15% of the elementary population and at least 6-10% of the secondary population are said to be below grade level in reading, and equivalent percentages have concentration problems which interfere with their work. Percentages ranging from 4.5% to 16.7% at various grade levels are said to be below grade level in spelling and arithmetic.

Appendix A

Behaviors Exhibited by Students, in Raw Frequency Form

Students Grouped According To:
Grades I-III
Grades IV-VI
Grades VII-IX
Grades X-XII
Kindergarten
Special Class, Elementary
Special Class, Junior High

(Students)

		Division						
	Total Number of Students Rated	Grade I-III 1961	Grade IV-VI 2048	Grade VII-IX 2765	Grade X-XII 2063	Kinder-garten 213	Special Elementary 24	Special Junior High 19
1.	Complains of aching or burning eyes	20	13	9	4	1	1	4
2.	Is easily fatigued	85	62	36	39	9	3	4
3.	Acts unusually timid, inhibited, fearful	56	52	71	46	25	6	7
4.	Speaks in extremely loud or soft voice	142	134	122	82	26	5	5
5.	Uses immature language	65	59	46	41	15	23	8
6.	Has an unusual discrepancy between written ability and oral expression	72	95	27	28	3	9	18
7.	Performs below grade level in arithmetic	137	254	164	70	13	16	18
8.	Rubs or brushes at eyes	19	21	30	4	2	5	4
9.	Has physical conditions which interfere with normal movement	8	9	1	4	3	10	2
10.	Destroys property	30	47	17	1	3	1	3
11.	Often asks to have words or questions repeated	98	109	83	55	9	1	12
12.	Has immature or very different speech patterns	63	36	17	13	17	18	7
13.	Exhibits overactive, uncontrolled, impulsive behavior	121	125	111	26	17	10	15
14.	Performs below grade level in reading	285	369	180	127	12	12	17
15.	Squints or peers at written materials	24	31	44	9	2	2	2
16.	Shows poor coordination in large muscle activities	45	45	32	7	10	13	3
17.	Is disobedient or defiant	78	87	62	23	14	5	11
18.	Appears to hear some things and not others	67	89	77	32	18	12	6
19.	Stutters or stammers	30	22	30	6	7	1	6
20.	Achieves lower than ability tests predict	42	87	49	4	2	11	-
21.	Performs below grade level in spelling	174	343	167	91	-	14	17
22.	Complains of headaches	27	26	20	11	-	-	5
23.	Exhibits very poor balance	13	10	14	2	9	10	2
24.	Exhibits explosive and unpredictable behavior	46	59	30	11	9	5	13
25.	Appears to daydream frequently	167	145	111	56	18	6	5
26.	Inflexible: cannot shift responses	20	33	29	11	8	9	16
27.	Has difficulty organizing thought processes and/or work	95	177	160	84	11	16	15
28.	Watches face of speaker intently	16	24	17	19	7	6	5
29.	Is easily distracted, lacks effort and perseverence	285	291	259	162	40	17	13
30.	Shows unusual difficulty with fine motor skills (eg., writing, tying shoes)	79	57	22	6	18	11	2
31.	Has unusual (severe) health problem	11	22	19	14	5	2	5
32.	Has difficulty grasping concepts of numbers, space, and time	72	103	61	19	19	21	17
33.	Has difficulty following verbal directions	104	93	91	30	17	12	18
34.	Is a bully, picks on others	49	58	35	8	5	1	11
35.	Shows poor memory	62	130	105	34	13	12	18
36.	Writes in a cramped, crowded, and/or laborious manner	77	72	34	9	2	8	4
37.	Lies, cheats, or steals	60	67	21	1	8	6	6
38.	Follows oral, but not written, directions	33	49	19	4	-	15	18
39.	Is a loner	43	62	72	40	17	6	6
40.	Is unable to tell a comprehensible story	18	25	7	9	9	16	7
41.	Is unable to work independently.	100	128	64	43	8	10	8
42.	Reverses letters, eg., b a s d	184	32	18	1	-	8	4
43.	Uses cane, crutches, wheelchair, prosthesis, or other orthopaedic device	1	2	1	1	1	1	-
44.	Has unusual speech patterns	25	17	6	1	16	11	5
45.	Lisps	39	20	12	1	7	2	2
46.	Exhibits nervous tics or mannerisms	32	27	15	7	6	1	3
47.	Lacks effort and perseverence	154	200	172	122	13	8	14
48.	Is blind	-	-	3	-	-	-	-
49.	Is deaf	3	2	2	-	-	-	-
50.	Other (specify)	15	17	1	10	9	9	-

Report #9: HANDICAPPED STUDENTS AND THEIR PARENTS

A Report of Interviews with Handicapped
Students and with Their Parents

Concerning: Impact of Integration

*What do handicapped students and their
parents say about integration?*

TABLE OF CONTENTS

Page

Introduction 9-2

Methods 9-2
  Rationale for Interviewing Parents of Handicapped Children 9-2
  Objectives of the Interviews 9-2
  Data Sources 9-2
  Content of Interview Schedule 9-3
  The Sample 9-3
  Data Collection Procedures 9-4
  Data Analysis and Reporting Procedures 9-4

Parent Interviews 9-5
  Background Information 9-5
  Integration and The Child 9-8
  The Advantages of Integration 9-23
  The Disadvantages of Integration 9-24

Summary of the Findings from Interviews with Parents 9-31

Child Interviews 9-34

Summary of the Findings from Interviews with Children 9-37

Report #9: Handicapped Students and Their Parents

What do handicapped students and their parents say about integration?

INTRODUCTION

This report presents the findings collected by in-depth interviews with handicapped students and their parents. The report was drafted by two researchers and their findings were then organized into one statement which follows. A summary of the findings is presented at the end of each section of the Findings.

METHODS

Rationale for Interviewing Parents of Handicapped Children. It was felt that the parents of handicapped children should have the opportunity to make a contribution to the study. Because they have been very involved in the problems and progress their children have experienced, it was felt that they would be able to provide valuable information which would be useful to the Calgary Board of Education.

Objectives of the Interviews. The three objectives for this study were:

1. To determine the opinions of parents of handicapped children on the advantages and disadvantages of integrated learning experiences and segregated learning experiences.

2. To determine if the parents of handicapped children felt integration should be increased, decreased, or left unchanged.

3. To gather the opinions of the parents of handicapped children on how the education of handicapped children can be improved.

Data Sources. The findings presented are based on interview data collected from 33 parents of handicapped children. Twenty-five (25) of the children were interviewed. Their responses are presented in point form.

Content of Interview Schedule. The semi-structured interview schedule contained questions which provided the following information:

1. a description of the child,
2. a history of his schooling experiences,
3. an investigation of the problems the child and parents have experienced, and
4. an opportunity for the study group to express their opinion on the direction integration in the Calgary school system should take.

The Sample. Class lists provided by the Calgary Board of Education indicated that 1,270 handicapped children were currently known to the Department of Special Education Services. From this list, it was proposed to randomly sample 31 parents according to the following stratified plan:

Type of Handicap	Grade Level	Number of Children to be Selected	Totals
Educable Mentally Handicapped	Junior	2	
	Junior/Intermediate	2	
	Intermediate	2	
	Senior	3	
	Senior Vocational	2	
		11	11
Trainable Mentally Handicapped	Special schools, all grades	4	
	Transitional Jr./Int.	2	
	Transitional Senior	2	
		8	8
Sensory - Hearing	Elementary	3	
- Vision	Elementary	2	
		5	5
Learning Disabled	Special schools	5	
	Integrated special classes	2	
		7	7
	TOTAL		31

The actual sample interviewed was slightly larger than anticipated. Thirty-eight parents were contacted by telephone to ask for their participation in the study. Four declined: one because they were tired of questionnaires, two because they were too busy, the last because they denied having a handicapped child. Thirty-four interviews were conducted. One of these interviews was discarded because the family had had the child as a foster child only a short time and had no background information.

Twenty-five children were interviewed. The parents of three children refused to have them interviewed: in one case the child was nonverbal; in another case it was felt that the child would likely not talk to the interviewer; in the last case the parent felt the child would not comprehend the questions. Three other children were not interviewed because of the difficulty of finding a convenient time for all parties.

Data Collection Procedures. A telephone contact was made by one of the two interviewers to request permission for the interviews. The purpose of the interview was stated as an attempt to gather information related to the study being conducted by the Canadian Institute for Research at the request of the Calgary Board of Education. A time for the interview was agreed upon. The parents were asked, at this time, to give permission for an interview to be conducted with the child. The interviews were conducted in the homes of the families with the exception of one which was held in the parents' place of business. Either one or both parents were present during the interviews. The interviews were conducted by two trained CIR staff and lasted from 40 minutes to three hours, with most lasting about 1¼ to two hours.

Data Analysis and Reporting Procedures. The findings were looked at question by question to group all pertinent information. Some of the information was grouped into five main categories where it was felt that the type of handicap and type of school arrangement being considered influenced the finding. These categories were as follows:

1. sensory handicapped
2. learning disabled
3. transitional classes, located in the regular schools
4. EMH children in special classes
5. TMR children in special schools

The statement of the findings presents the information collected pertinent to each question posed during the interviews. Both quantitative and qualitative data is presented as well as direct quotes from parents where applicable.

Interviews with the parents of handicapped children are presented first followed by the findings from the students themselves.

PARENT INTERVIEWS

Background Information

Question #1 - How old is the child?

The children ranged in age from 4 to 19 years.

Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	TOTAL
No. of Children	1	0	1	2	7	0	2	4	3	3	3	3	2	1	1	33

Question #2 - Is this a boy or girl?

There were nineteen boys and fourteen girls.

Question #3 - What grade is the child in at school?

This question was difficult for many parents of children in special classes to answer. There were five "I don't know" answers; two each from parents with children in junior high and secondary vocational schools, one at the elementary level.

Six parents indicated that their children were in individualized, non-graded programs. One child was in an ECS program, three were in Grades 1-2, one was in Grade 2, two were in Grade 4, one was working in Grades 5-6, two were in intermediate grades and one was a senior high student.

Of those in special schools, seven were in primary classes, one in junior grades and one at senior high level.

Question #4 - Could you please describe the exact nature of (child's) handicap?

Answers to this question from parents of children in special schools were precise; from parents of children in special classes in the regular schools, answers were on the whole non-specific and occasionally evasive. Some of these parents objected to the word "handicapped" to describe their child.

Children in special schools were primarily considered to have moderately handicapping conditions (9 children) and two were severely handicapped. Similarly, nineteen children in special classes, transitional classes or integrated classes were considered moderately handicapped and only two were rated with mild handicapping conditions.

Parental descriptions of handicaps included:

1. Down's syndrome mild (four cases),

2. Down's syndrome 11 (two cases),

3. Cerebral palsy with brain damage (two cases),

4. Cerebral palsy with brain damage non verbal, not socially trained,

5. Learning disability - visual perception - some motor dysfunction - inability to concentrate (three cases),

6. Slow learner, dyslexia, moody, loud,

7. Rebellious, "I don't care" attitude, changeable moods,

8. Hyperactive, "minimal brain damage", slow learner, tantrums (two cases),

9. "Bull-headed," won't obey teacher,

10. Mentally retarded, slow learner (three cases),

11. Learning disability, very slow learner, poor muscular coordination,

12. Slow to learn, refuses to try if doesn't understand immediately, withdrawn, moody, gets upset,

13. Poor eyesight from illness - not correctable, epileptic - controlled,

14. Poor eyesight - corrected; poor coordination (good now) poor concentration, hyperactive,

15. Hearing impaired (three cases).

Question #5 - Could you please provide a description of (child's) school history? We are interested in knowing what schools he/she has attended and what the programs in these schools were like.

The findings are listed according to the type of handicapping condition of the child and the present school arrangement experienced by the child.

The sensory handicapped - 5 in the sample. One child was moved from a regular classroom to a special class for sensory handicapped. This move was necessitated as the child's handicap developed. There was a high level of frustration until the problem was recognized and the placement made. The academic work then improved.

Four children have been in special classes in integrated schools. The parents indicated they were generally pleased with the academic progress and felt it was sufficient considering the extra time spent learning special skills associated with the handicap. The children who were hearing impaired developed socially as their ability to communicate improved. The visually impaired needed more assistance in finding friends.

The learning disabled - 7 in the sample. Two children were in special classes in neighbourhood schools. They had both attended special classes in special schools and moved to the more integrated school on the advice of teachers and consultants from the Special Education Department. The parents felt that the schools were developing the children according to their needs. They were very pleased that the children were receiving special services from trained personnel.

Three children are in the hospital school. All of these children were in regular schools and moved to this setting for medical reasons, behavioural problems and emotional problems. Because these children had not been able to function in regular schools, the parents were very pleased that their progress was greatly improved. In each case, the parents hoped that the child would eventually advance enough in the problem areas to be able to return to regular classrooms.

Two children are in a special school. Both started school in regular schools and were moved to the special school because of a learning handicap or behavioural problem. Both parents were pleased with student progress. One parent realized special assistance will always be needed because of learning problems. The other hopes enough development will be achieved that the child will return to regular programs. These children showed frustration with difficult situations, but were happier when pressure was reduced.

Children in TMR schools - 5 in the sample. These children have received special assistance or been in special programs throughout their schooling experience. They are all in special classes in neighbourhood schools. Four parents feel pupil progress is good to excellent in accordance with their earlier expectations. One parent felt progress was slow. These children generally feel happy in school.

EMH Special Classes - 12 in the sample. Eleven children are in special classes within regular schools, and one is in a totally integrated multi-grade open area with three teachers, one of whom is a special education teacher.

Six children had some preschool education experience of whom three took more than one year in kindergarten.

Seven children started in the regular school system, spending from 2 months to six years in regular classes. They were moved to either special classes; to an integrated multi-grade class; or to a special school. One of these children later came from the special school to the integrated special class.

Time in School	2 mos.	1 yr.	18 mos.	2 yrs.	4 yrs.	6 yrs.
No. of Children	1	1	1	1	2	1

One child began in a special class. After two years he moved to a special school for one year, and later returned to the special class.

Four children began in special schools spending from two to five years there before entering special classes.

Time in School	2 yrs.	3 yrs.	4 yrs.	5 yrs.
No. of Children	1	1	1	1

The children's programs are, at present, varied as to integration.

Totally integrated	1
Mostly integrated (2 subjects only in special class)	1
Partially integrated (music, gym, art, science, shop)	5
No integration	4
Not known	1

TMR Special School Children - 4 in the sample. Four children have had all their schooling in special schools, with the exception of some integrated pre-school and therapy programming. Two of these children attended a cerebral palsy clinic for three years each. Two attended a special class kindergarten. Additionally, one attended the Language Behaviour Programme and the ACH primary program with therapy.

These four children, who range in age from 8-19 years, are in special schools for periods varying from 2-12 years. All programs have been segregated.

Integration and the Child

Question #1 - We are interested now in finding out how the child has reacted to each of the types of school arrangements which you have just mentioned. I will start at the top of the list and ask you the same questions for each arrangement. For each arrangement, we are interested in knowing:

- *a. How (child) likes it. Why did he/she feel this way?*
- *b. Were you satisfied with (child's) academic work? Why and why not?*
- *c. Were you happy with (child's) social relations with his/her fellow students? Why or why not?*
- *d. Were there any particular difficulties in this situation? If there were, please describe them.*
- *e. Were there any particular advantages to this situation? If there were, please describe them.*

Question #1a - How did the child like the school arrangement? Why?

The majority of interviewees indicated that their children liked going to school most of the time. Periods of dislike, frustration, or unhappiness arose when children were in classes working either above or below their capabilities, when there was a change of school, particularly if it was a change from elementary to junior high or secondary vocational; when there was a change of teacher, particularly in mid-term. One child disliked the idea of "special school" and one wants to be in regular classes.

The main reason given for a child liking school was that the teacher was good. Being in a neighbourhood school or remaining with the same group of children also received several mentions.

All parents of severely handicapped children indicated the children liked school. The oldest is now not as happy because there are too many younger children and there is not enough stimulation.

Question #1b - Were you satisfied with (child's) academic work? Why and why not?

The degree of satisfaction or dissatisfaction expressed depended a great deal on the path the child had taken through the school system. Answers have been summarized according to the path taken.

Four children who started and remained in special schools (severely handicapped children) were relatively happy with school. Three parents felt academic achievement was as good as could be expected. One indicated that there is too much change in the program and that the school doesn't operate as a unit so children get confused.

Four children began in special schools and progressed to special classes. One parent expressed complete satisfaction. One parent felt the special school had no academic curriculum but her child learned to read. One parent was dissatisfied with special class immediately after special school because the child didn't seem to learn anything new, but is satisfied now that child has been in different classes. One parent felt more should have been demanded of child. This child has a tutor now.

Three children began in special classes (one had had 2 months in regular school program). One parent was totally dissatisfied until a tutor was hired privately. One parent felt the child, for 10 years, didn't learn much but didn't really try "until this year." Now the parent is more satisfied.

Fifteen children started in a regular classroom situation. Five parents expressed dissatisfaction while child was in regular class situation. This was because the child wouldn't try if he could understand immediately; teachers expected more than child could achieve; the child wouldn't do what teacher assigned; and no extra help was given when child couldn't achieve and fell behind. One parent expressed partial dissatisfaction because the child repeated a grade and the child felt that the teacher didn't have time for her.

Most parents felt improvement when children moved to special classes. Sensory impaired children improved academically when additional help was available. LD . EMH children experienced less frustration as they experienced positive achievements. Other parents mentioned improvement because the teacher makes them work; the child is working at his/her own level and has pride in succeeding; and because the child is being taught how to plan. One child had regressed and developed an "I don't care" attitude.

Question #1c - Were you happy with (child's) social relations with his/her fellow students? Why or why not?

The parents in general were happy with their child's social relations, but in eleven cases there were qualifications or exceptions. Some parents who felt there were few social problems mentioned a lack of negative reports from the school personnel.

Three children have had difficulties since moving to a more senior school. One child had very poor social relations until he was placed in a special class. One child had very poor relations over a period of many years, but is now improving. One child had good relations in beginning, but since changing to a special class fights a lot and is withdrawn. One parent feels other children may be saying or doing things to cause her child to throw tantrums and act out. Four parents (including the parents of 3 children mentioned above) mentioned that teasing and name-calling by other children caused some unhappiness.

Question #1d - Were there any particular difficulties in this situation? If there were, please describe them.

9-11

The data collected from this question is presented according to the type of handicap or present school arrangement of the child.

Visually Impaired. Problems mentioned included:

1. very long bus ride,
2. there are no organized programs to integrate the lunch time and recess time play activities,
3. the lunch period is too long,
4. school is short of instructional materials.

Hearing Impaired. Parents of three children mentioned:

1. the junior high program has only recently been started. At present there is no program for senior high students,
2. there is not enough time with a speech therapist,
3. their child is grouped with children who have behavioural problems.

EMH Children in Regular Classrooms. A total of six parents with regular class experience - 3 replied:

1. child couldn't keep up (2 mentions),
2. teachers not very understanding,
3. other children teasing,
4. too much homework,
5. large classes.

EMH Children in Special Classes. A total of 11 parents with special class experience - 10 replied:

1. child went riding the bus instead of staying at school at noon,
2. other kids tease and are mean (2 mentions)
3. not enough discipline (2 mentions),
4. because of bussing, child has two sets of friends,
5. no integration,

6. disruption when teacher changed part way through the year,

7. parents of boys preferred mixed classes (2 mentions)

8. parent felt academic learning was better in special school,

9. poor bus system,

10. class was quite large or getting larger (2 mentions),

11. special classes not made to feel part of school -- not included in most field trips or outside programs,

12. teacher off sick for long period,

13. class seems made up of disadvantaged children,

14. little help offered for new experiences,

15. temper tantrums and emotional outbursts by child.

EMH Children Totally Integrated. One child only.

1. too much activity in open area is a distraction.

TMR Children in Special Schools. Six parents with special school experience - 3 replied.

1. child doesn't like idea of "special school"

2. child picked up mannerisms and "silliness" from more handicapped children (2 mentions).

Severely Handicapped in Special Schools. Four parents interviewed.

Only one interviewee perceived any difficulties. These were that there were no playground facilities, the program was "not enough" for her child and the child has not been prepared to do anything else.

> *Question #1e - Were there any particular advantages to this situation? If there were, please describe them.*

The information collected from this question is also presented according to the type of handicap and school arrangement.

9-13

Special classes in integrated schools.

Advantages	Disadvantages
TMR Children:	
1. children form friendships which follow them through several successive school situations	1. lunchroom facilities are not available in small school setting
2. mingle with normal children at play time	2. long bus ride
3. normal children learning to help handicapped children	3. wonders if program is practical enough
4. integration is beneficial for children and teacher	4. some of the facilities available in schools where there are larger programs for handicapped children are missing
5. teacher and principal with good attitudes towards handicapped children are in these schools	
6. children in normal classes are learning to accept handicapped children	
7. teachers are learning to cope with the problems of handicapped children	
Visually Impaired:	
1. there is no other alternative except an institution for educating these children	1. the children are moved out of their own community
2. the children are learning to read Braille	
3. special equipment to aid learning is available	
Hearing Impaired:	
1. the child is bused so parents do not have the responsibility of taking to school	1. child is learning he is different from others
2. child is learning special skills needed	2. the regular teachers do not have special training in communicating with the deaf
3. low teacher-pupil ratio	3. sticks too much with deaf children

(Handicapped Students and Parents)

Advantages	Disadvantages
Hearing Impaired (continued)	
4. would be unable to cope with academic level of normal classes	
5. until this program was begun H.I. children had to be institutionalized	
6. child is losing fear of hearing problem	
7. has developed lasting friendship	
8. well supplied with equipment and well qualified personnel	
Learning Disabled:	
1. child loses frustration of trying to cope with normal children	1. all activities must be carried on in one room
2. being part of a "group" was a positive socializing experience	2. not enough special equipment available
3. has the opportunity of being with several different teachers because of several special classes in school	
4. has the chance to develop friendships with normal children	
5. has established friendships which have followed through several school situations	
EMH Children	
1. teacher has more time to help (3 mentions)	
2. smaller class (3 mentions)	
3. got into a different group' of friends (2 mentions)	
4. some integration with regular classes (2 mentions)	
5. male teacher	

Advantages	Disadvantages
EMH Children (continued)	
6. sympathetic principal who child could go to	
7. both boys and girls in class	
8. regular class children very encouraging	
9. in local school (2 mentions)	
10. extra learning aids available	
11. home type skills are taught	
12. has learned to respect herself	
13. no bussing	
14. excellent teachers	
15. same group of children stayed together	
16. small, nice school	
17. special class children were included in assemblies	

Regular Schools. Six parents had regular school experience - 1 replied.

Advantages	Disadvantages
1. school was in neighbourhood	

Integrated Child. One parent had experience in a fully integrated class - 1 replied.

Advantages	Disadvantages
1. one teacher is a specialist	

Special class in special school.

Advantages	Disadvantages
Learning Disabled:	
1. attention to special physical needs	1. imitated the more physically handicapped

Advantages	Disadvantages
Learning Disabled (Continued)	
2. school program geared to child's needs	2. mother concerned for child's safety from rougher children
3. child accepted by school mates	3. mother concerned child will learn poor behaviour
4. children bused to school reduces worry	
5. the teacher is trained in handling handicapped children	
6. teachers are geared to handling children with problems	

Special Schools. Six parents had special school experience - all 6 replied.

Advantages	Disadvantages
TMR Children:	
1. learned more responsibility i.e., to take bus	
2. slower class, child could keep up	
3. others there like himself so child was comfortable	
4. teachers are stricter	
5. male teacher who was interested	
6. individual help	
7. teacher very caring	
8. all children included in activities like concerts	

Special education in Children's Hospital.

Advantages	Disadvantages
Learning Disabled:	
1. learning to help other children with greater physical disabilities	1. long bus ride is hard on child

Advantages	Disadvantages
Learning Disabled (Continued)	
2. has made good academic progress	2. not a normal setting
3. improved progress in school is a positive experience for child	3. no outside recess
4. has a speech therapist available	4. due to construction there is little play area
5. smaller class size	5. dust and noise are the result of daily construction
6. special medical services are readily available	6. the gym program is insufficient due to the physical handicaps of many children
7. specially trained teachers help children with learning problems	7. lack of contact with normal children
	8. more severely handicapped children use their disabilities as a lever to gain control

Severely Handicapped Children. The answers here referred to two different types of school arrangements; special schools and clinics. Advantages seen for clinics were that speech and physio-therapists were helping (2 mentions) and that there was a one to one relationship.

Advantages to special schools were:

1. variety of special toys and puzzles
2. child has somewhere to go
3. very supportive principal.

Question #2a - Where does (child) find most of his/her friendships and companions: with other handicapped children, or with the non-handicapped?

Sensory handicapped. These children all found most of their friends among the handicapped. A strong factor was the ability to communicate. As the child acquired the skills needed to communicate he was able to develop friendships with non-handicapped children.

Quotations - *"hearing children haven't the patience to try to understand what (child) is saying."*

"a blind child can't skip or play catch."

Learning Disabled. These children often had difficulty in making friends in any situation. The earliest friendship usually developed at school with school controls. As the socialization skills developed, approaches were made to children in the community.

TMR Classes. These children made most of their friends among the members of their classes. The degree to which they made additional friendships in the community depended largely on three factors:

1. the ability of the handicapped child to communicate
2. the personality of the handicapped child
3. the attitude of non-handicapped neighbouring children toward people with handicaps.

Quotations - *"(child) doesn't take any notice of other children."*

- *"(child) makes friends with children around here but after awhile they out-grow him."*
- *"some children just can't be bothered with (child)"*
- *"once they got used to (child) he/she was just one of the gang."*

EMH Special Class Children. Many interviewees believed their children had friends equally from more than one source. A difference was also seen depending on the age of the child. The younger children were more likely to have friends mainly in the neighbourhood or within the household.

	Number of Cases		
Type of Friend	Children 10 yrs. & under	Children 11-12 yrs.	Children 13 yrs. & over
Neighbourhood children	1	2	1
Neighbourhood children but younger	1	1	2
Within own household	1	1	1
At school:			
handicapped		2	5
non-handicapped		1	1
TOTAL	3	7	10

The total is greater than the number of children discussed because of multiple answers by parents. All children are entered into the table at least once.

Two parents mentioned that most contact outside of school is by telephone because children come to special class from widely scattered areas. Only two parents mentioned attempting to integrate children into community activities, i.e., cubs, sports. One parent spoke highly of V.R.R.I. swimming program and one mentioned Camp Horizon.

TMR Special School Children. The children from special schools were much more restricted in where they found their friends. Two indicated only at home or in special school. One child had friends among neighbourhood children or school friends by telephone, and one had no friends by preference.

The child's condition was judged to have contributed as much to friendship patterns as schooling arrangements.

Question #2b - Have schooling arrangements contributed in any way to the present situation?

Generally school arrangement contributed to the situation in two ways:

1. much of the child's day is spent on the bus or at school;
2. the teachers and staff were involved in the socializing process.

Parents who felt the school arrangement did affect social relationships stated that: children are bussed from all over so there is no contact outside school except for telephone (3 mentions), and that there was no opportunity to meet neighbourhood children.

Parents who did not feel that the arrangement affected social relationships stated that the special class is local; the child played only with siblings, or was in a totally integrated class; and the child only had one friend because he can't be bothered with others.

It was suggested that handicapped children must learn skills to help them win friends. At the same time non-handicapped children must have developed attitudes which would help them to accept children with handicaps.

Question #3 - What in your opinion is the best form of school arrangement for (child)?

Since the answers to this question were very subjective, the interviewer arranged them into five main categories:

9-20

1. No opinion	3
2. Special class in special school till ready for integration	6
3. Special class in community school with no integration	4
4. Special class in community school with integration in subjects where the child has the needed skills	12
5. Integrated classes with some special services available as needed	4

Two parents mentioned that child should be pushed harder to progress or have academic challenge while still capable of learning. One interviewee wanted integration in classes with a small pupil/teacher ratio. One parent felt a trade or vocational school would be best.

The majority of parents chose a school arrangment very similar to the one the child was presently enrolled in. Many expressed the opinion that the child was making such great progress at the moment that he/she was probably where she belonged. Although the parents expressed the wish that the child's school be as close to home as possible, they felt the child should be where he/she was receiving the most benefit.

The main reasons given for special classes were that the child does better because classes are smaller and more help is available. The child is socially more comfortable. Where there is some integration desired the reason is because contact with other children remains. Reasons for those wishing more academic push were, in one case, that child has learned quickly from a tutor and in the other, that the child should be challenged while still capable of learning. The one wanting trade training was because the child had "no academic ability."

Question [illegible] - Have you been generally satisfied with the school arrangement for (child)?

Yes - 24 No - 7 Partially - 2

A high percentage of parents were generally satisfied with the school arrangement for their child. There had been some concern in cases where the child had begun school in a program which was not designed to meet the needs of his/her handicap. In those situations the child was frustrated and unhappy. When the child was placed in a special program, even though it produced a variety of problems which will be investigated later in this study, the parents felt it was justifiable.

Quotation - Before: *"child didn't like school - was quite unhappy."*

- After: *"child is happy and comfortable."*

a. If not please explain why. Provide examples to illustrate your answer where possible.

One parent wasn't satisfied until the child was placed in a special class. One felt teachers weren't strict enough, so child didn't do anything she didn't want to do. One felt there should be integration from the beginning "because there is really nothing for these children as yet within the school system."

The parent of one special school child says there is no space in the school to handle the diversity of handicaps so each child is not being taught to his or her potential.

Question #5 - Even though you have been generally satisfied, have there been specific incidents where you have run into problems?

The interviewer compiled a list of the problems the parents presented and found they fell into the following categories:

1. problems related to the transporting of children to and from school
2. problems related to the interaction of pupil, teacher and parent
3. problems related to assessment and placing
4. problems related to curriculum
5. problems related to school organization.

Most of these problems were related to problems of administration and were of a type that would be found in any type of school class. Few appeared to be related to child's handicap.

Three incidents were mentioned by special school parents. Two incidents concerned bussing and the other concerned a child being hurt by other children. All were satisfactorily worked out.

Question #6 - Are the schools helping to prepare (child) to live a productive, adult life suited to his/her capabilities?

Category	Response Choices			Category Total
	Yes	No	Uncertain	
Sensory handicapped	4	1	--	5
Learning disabilities	7	--	--	7
TMR classes	3	--	2	5
EMH Special class children	9	2	1	12
TMR Special Schools	1	2	1	4
Response Total	24	5	4	33

Opinions of a positive nature:

1. the child is being taught to communicate
2. children are being shown career opportunities and vocational options
3. the handicapped child is being taught to be assertive
4. the child is being taught skills necessary to cope with his/her handicap
5. the child is being taught skills necessary to return to a normal classroom
6. child is helped to make emotional adjustment
7. teachers work with parents to find suitable program for child
8. children are taken on field trips and excursions to present the normal situation
9. child is being taught basic learning skills
10. program is designed to produce a maximum amount of independence - example - the Travel Training program, managing own study and time.

Opinions of a negative nature:

1. there is no program for these children as they grow older
2. the child is not integrated with his peers
3. there is not enough training which will teach the child to cope with his problems outside the home or school
4. what is being done is not extensive enough
5. not enough I.Q. testing

6. not enough specialized help to find out child's capabilities.

Question #7 - This study was commissioned by the School Board because it has been suggested that the extent of integration of handicapped children in the regular schools should be increased.

a. Are you familiar with the education of many handicapped children other than your child?

Most parents were not familiar with the integration of handicapped children other than their own child. The most knowledgeable group included parents with children in special schools.

Question #7 - b. Have you formed any opinions on whether or not integration should be increased. "If so, could you please explain how you see the situation?"

The majority of the parents were in favour of more integration. One felt that parents don't have enough knowledge so the decision should be left to the school board and teachers, and one said handicapped children should not be integrated into regular classes but that special classes in regular schools are all right.

Although most can see numerous advantages to increased integration, they expressed great concern that handicapped children should not lose the special services and skills available in present or segregated programs. Some of the advantages and disadvantages mentioned by parents are listed below.

The Advantages of Integration

Social

1. integration helps handicapped children learn to interact with non-handicapped children

2. if non-handicapped children are exposed to handicapped children at a young age, they more readily learn to accept people who are different from the norm

3. handicapped children learn the attitudes toward life of normal children

4. handicapped children benefit from recognizing and accepting the fact that they are different

5. teachers and other adults see handicapped children in a normal setting and learn to interact better with people who are different from the norm

6. the handicapped children make associations with a larger group of children

Academic

1. handicapped children adopt the sometimes higher goals the non-handicapped children set for themselves

2. handicapped children require the stimulus of association with normal children

3. integrated programs offer a greater variety of educational experiences

4. the usually larger school settings found in integrated programs offer a greater variety of educational experiences

Environmental (Practical)

1. it is possible to have integrated schools closer to the home community which reduces long bus rides

2. usually larger school settings are found in integrated settings

3. in a segregated setting, children who are mentally and emotionally handicapped are often grouped with the physically handicapped with the result that the program does not meet the needs of all students

The Disadvantages of Integration

Social

1. because handicapped children feel different from normal children, they benefit from belonging to a group

2. some handicapped children cannot cope with the competition and pressure present in integrated classrooms

3. children tend to copy the mannerisms and behavioral patterns of children with more severe handicaps

4. in a segregated situation, a handicapped child does not feel "different" and isolated from the majority

Academic

1. special schools and classes have provided such positive results with the child

2. there are some children who can only function in a special class

3. handicapped children need an individualized program which is difficult to set up in an integrated classroom

4. in a special class, a handicapped child is more positively aware of his rate of progress in relation to other children

Environmental

1. the availability of special services and skills would be seriously affected if the children were not in a centralized location

2. better shop and handicraft programs can be offered at a centralized location

3. it would be extremely expensive to equip all schools to handle all types of handicapped children

4. it would be difficult to find enough qualified teachers to handle all types of handicapped children in all school settings

5. handicapped children require a low pupil/teacher ratio which is difficult to arrange in an integrated class

6. in segregated settings the class sizes are usually lower

7. special privileges are often provided to groups of children who are handicapped

8. when a child attends a segregated class or school, the school board relieves the parent of the responsibility of transporting the child to and from school

Question #7c - Have you formed any opinions on what form integration should take? What would the schools look like if integration were increased?

Most of the parents who answered felt more special classes or special classes in more schools would be good, especially if children were integrated into regular classes wherever they were capable of coping with them.

1. children should be totally integrated in smaller classes; with one class containing integrated physically handicapped children and one class for integrated learning disabled children

2. special classes should be moved to neighbourhood schools close to where the child lives

3. special classes should have better home-economic facilities, shop facilities, and craft rooms

4. special classes should be spaced throughout the school when there is more than one to increase the feeling of integration

5. special classes should be placed in smaller schools

6. special classes should be in schools which feed into schools which have the special classes for older children

7. more special classes for severely handicapped children should be in regular schools

8. supervised activities should be organized at recess and lunch time to help handicapped children integrate with the non-handicapped

9. incandescent lights should be used instead of flourescent lights because of the effect on hyperactive children

10. structural designs of schools should be less functional and designed so as to create student interest

11. playground equipment for children with specific handicaps should be available

12. new schools should be built with facilities and equipment necessary for the handicapped

13. one parent was against total integration and two were against having severely handicapped in regular schools

Question #7d - If integration is increased what kinds of things would the School Board have to do to help make it a success?

The majority of those interviewed had some suggestions. The most mentioned was hiring of more special education teachers (6) followed by more teachers (4), more special classes (3), more specialists to assess each child's needs (3), more funding (3), utilize empty classrooms for special classes (2).

Items mentioned once are listed below.

1. more teaching aids and specialized equipment

2. faster action getting children who are lagging into special classes

3. remedial classes

4. teachers' aides

5. smaller pupil/teacher ratio

6. no open area schools

7. more flexibility in programs

8. no separate school boards

9. full use of handi-bus for those needing it

10. teachers could be sent to areas with a good reputation for handicapped teaching to learn methods

11. cooperation of regular teachers must be gained

12. cooperation from parents of regular students

13. broaden scope of possibilities so child can find something he/she does well

14. specialists in movement and music
15. teach braille or sign language to regular classes when the school has visual or hearing handicapped
16. specialists in various fields to talk to sensory handicapped e.g., botanist to explain plants to the blind
17. provide more funds for specialized teachers i.e., speech therapist
18. provide more diagnostic facilities
19. provide better transportation facilities
20. develop a rating system to provide a gradual approach to integrating handicapped students

Question #8 - Has your child ever been assessed by specialists with the School Board?

About a quarter of the parents did not seem at all sure if their child had been assessed until they were asked how the child got into a special class. Parents were then able to give some information concerning initial assessment. Twenty-nine parents stated their child had been assessed by the School Board and four said they had confirmation of their child's handicap from a medical doctor.

Question #8b - If yes: How often has assessment procedure taken place? Please provide dates if you can remember them.

There appears to be a significant variation of the parents' knowledge of the child being assessed and/or the frequency of assessment. Only half the parents were able to recall assessments happening at reasonably regular time intervals.

Once in school history - 7
Once every 4 years - 2
Once every 2 years - 3
Once every 1 year - 7
Once every 6 months - 2

8bii. Have you been involved in the assessments yourself? Has your husband/wife?

Twenty parents talked to someone about putting their child in special classes. Ten felt they had been involved at least in first assessment. Two were called by a teacher with a recommendation to put the child into special class.

Eight parents were not involved in assessment procedures and one stated they could not remember.

8biii. Who else has been involved?

The most frequently mentioned people were the child's teacher, a psychologist, a visiting teacher. Others receiving mention were the special education teacher, several school board people who were not identified by title, DAT centre, Alberta Mental Health and Emily Follesbee staff.

Personnel involved in assessment of intellectually handicapped children:

- L.A.C. teacher
- principal at Children's Hospital
- teachers and Children's Hospital
- psychologist
- visiting teacher
- school nurse
- medical doctor
- D.A.T. centre
- speech therapist

Personnel involved in assessment of TMR children:

- school psychologist

Personnel involved in assessment of hearing impaired children:

- speech therapist
- psychologist
- rep. from special education
- audiologist
- optition

Personnel involved in assessment of visually impaired children:

- none according to parents

8biv. Exactly what procedures were followed?

The most commonly mentioned procedure for children going to special classes from regular class situations consisted of an initial contact by the teacher, or principal followed by a meeting either in the home or at school with the teacher and/or principal, visiting teacher or psychologist to discuss it. In several cases the parent mentioned taking the child to see the psychologist first.

One parent had a child tested by her request because she felt the child was not able to cope where she was.

Only one of those interviewed felt that the information available was not satisfactory. She would like to see the parent receive a written report of the child's assessment before meeting with the others so that the material can be assimilated and understood.

Those interviewed whose children went from special school to a special class situation were very vague. They did not seem to feel they had been part of any assessment after the child left the school.

8bv. Have you ever disagreed with the decisions of the other persons involved in the assessment? What happened in this situation?

The majority of those interviewed said there were no disagreements. Several indicated that they did not feel qualified to disagree.

The disagreements mentioned are listed below.

1. One parent initially disagreed with suggestion that child be placed in special class. He was eventually convinced by visiting teacher that child would learn better there.

2. In one case the special school principal thought the child should go to special class but the school board was reluctant so parents kept asking until child was given a trial.

3. Another parent feels her child is further behind his age group than teacher says so is going to have him assessed privately.

4. The mother disagreed with child being sent to vocational school but teacher explained that the child would regress because others in the class were younger.

5. Parent disagreed with first assessment that indicated child could function in her regular school class. After a second assessment the child was placed in special class.

Question #8c - Are you generally satisfied with the extent and adequacy of assessment?

Physically Handicapped Children.

1. the assessment is centered on the child's physical ability in relation to his handicap

2. little assessment of his intellectual abilities takes place

3. there do not seem to be any tests available geared to children with specific handicaps

4. children's school progress is difficult to evaluate

Children with Learning Disabilities.

1. these children are assessed much more regularly and extensively

2. a high level of satisfaction in relation to the extent and adequacy was shown

3. parent agreed

TMR Children.

1. low level of satisfaction in relation to the extent and adequacy of assessment

2. felt the children's individual capabilities should be assessed

3. no disagreement with decisions of other persons involved in the assessment.

EMH Children.

1. it took so long to get the child into a special class

2. the teacher and psychologist are presently not in agreement on future placement of child

One parent felt that parents should be notified before assessments and should be able to meet with the person who compiles it. A written report should be given to the parent before such a meeting takes place.

Question #8d - Please describe any problems associated with the assessment procedures.

1. Parents, especially those with children diagnosed as having learning disabilities, felt there was far too long a waiting period for assessment and student placement.

2. Because of the process of assessment and placement being so lengthy, problems were perpetuated and increased.

3. Parents of children who had received little or no assessment felt that major decisions were being made for the child's future without enough consideration.

4. Tests, particularly those administered by school psychologists, were administered before rapport had been developed between the child and psychologist.

Question #9 - Are there any other comments you would like to add?

1. *"There is a breakdown of communication between teacher and parents. Teachers tend to feel problems are parent or child caused. Parents tend to think the teachers should do more."*

2. Parent is pleased with child's progress and school situation. *"I don't want to see special classes done away with."*

3. Very pleased with support and interest given to child and family by the school board.

4. *"I'm satisfied with what the school board is doing."*

5. *"I believe if a parent makes too much fuss about anything that the child is discriminated against."*

6. *"We don't criticize teachers or teaching methods. Let things take their own course."*

7. If the child shows an interest in a special subject, he should be allowed to do it to the best of his capabilities. If they can work at a grade level they should be integrated with that class even if they are older. They should be challenged more.

8. *"I don't think there is much discipline of any kind in the schools."*

9. *"Children should learn understanding and tolerance at home, not by having mentally handicapped children in their room."*

10. Are parents of "normal" children being included in this survey?

11. A point against integration is that children may not be accepted. (2 mentions)

12. *"The school board is doing as well as possible except there is not enough funding. Teachers are great."*

SUMMARY OF THE FINDINGS FROM INTERVIEWS WITH PARENTS

The findings from interviews with the parents of handicapped children indicate that there is considerable variance in responses according to the particular needs of the child and the knowledge and aspirations of the parents.

The intent of this study task was to conduct in-depth interviews with parents who represent both a wide range of children with varying handicapping conditions and who have children in various school arrangements. Consequently, although some attempt was made during analysis to indicate the findings according to these groups, the sample size was insufficient to make definitive statements. Hopefully, the findings from this section will support and amplify trends that appear from other data sources.

School History. The classroom placement history of children presently served by the Department of Special Education Services indicates that many (15) of the children started school in regular programs and were moved to special classes when their disabilities became evident as poor performance resulted in frustrating and negative school experiences. For similar reasons, two children were moved from regular school to special schools.

TMR children had a consistent placement history either in special classes in regular schools or in special schools. Two learning disabled and four EMH children who started school in special schools, have moved into integrated programs with some support and special classes in regular schools, respectively. Only one EMH child in the sample who started school in a special class has remained in that class.

Advantages of Current School Arrangements. Parents strongly indicated that most forms of school arrangements have positive benefits for different types of handicapped children. In most instances, the benefits are derived from the special arrangements provided in the class, whether trained teachers, adequate equipment, low pupil/teacher ratios and/or the attention given to special needs. Classes in regular schools provide opportunities for more extensive of a long-term nature and the familiarization of non-handicapped children with different handicapping conditions.

Some parents mentioned that the disadvantages of special classes in regular schools included bussing, inadequate facilities and equipment, and some poorly trained staff. Handicapped children tended to become more aware of their handicap in regular schools, but also had poor behaviour models in special schools.

Problems Experienced from Current School Arrangements. The findings did not appear to suggest definitive problems with particular school arrangements. Bussing necessary to attend special classes; the high teacher turnover, lack of skill and poor discipline of a few teachers; the sporadic attempts to integrate handicapped and non-handicapped children in non-academic experiences and field trips; the heterogeneous nature and large classes of some special classes; and inadequate resources were mentioned by parents as being problems in some school arrangements.

Friendship Sources and Impact of School Arrangement. Most handicapped children developed friendships with similarly handicapped children, children who shared their special class arrangements and lastly with community children. Younger EMH children were the group most likely to have friends in their immediate neighbourhood.

School arrangements affect the development of friendships in that handicapped children spend long periods being bussed to school, or at school. The extent to which staff were able to effect the socializing process, and the willingness of non-handicapped children to accept children with handicaps, were identified as factors affecting friendship patterns.

Parental Opinion of the Best Form of School Arrangement for Their Child. Most parents chose a school arrangement similar to the one in which their child was presently enrolled. This meant that a majority of parents supported placement in a special class with some degree of integration.

Parental Satisfaction with the Present School Arrangement of Their Child. A majority of parents were satisfied with their child's present placement. Dissatisfied parents stated individualistic reasons that indicated no common trend. Further, few parents were able to provide specific instances of problems that emerged from the placement of their child in their present school arrangement.

Adequacy of School Preparation for Productive Adult Life. Parents generally believed that the schools were providing the basic skills for their children to cope with their handicap, prepare for career options, and seek possible life style habits. Negative views centred on the current assessment of the child's needs and planning of future experiences.

Parental Assessment of the Need for Increasing the Extent of Integration in the Calgary Public School System. Parents interviewed generally supported increased opportunities for integrated experiences although they were concerned that the specialized skills and services available in segregated settings should not be diminished. Parents as a whole appeared to understand both the advantages and disadvantages of increased integration and were consequently amenable to feasible solutions that maximized the benefits to their child.

Ready availability and access to special services were implied in the suggestions for increased integrated class arrangements. Other suggestions mentioned specific improvements in special class options. Parents realized that additional staff, more classes, increased assessment procedures, funds and equipment would all be needed to make increased integration a success.

Parental Assessment of School Board Assessment Procedures. The information provided by parents indicates that although some procedure is implemented, in many cases parents are unaware of the nature, frequency or extent of the assessment. Their involvement appears to be limited to an information session with the school representatives once a decision has been made that a child requires additional services. Some parents appeared instrumental in requesting an assessment of their child, but then lacked the knowledge or preparation time to participate actively in decisions concerning their child's placement. It must be noted that in most cases, parents were satisfied with the present assessment procedures.

CHILD INTERVIEWS

The following summary lists the responses to questions asked of handicapped children, at the conclusion of the parent interviews. Twenty-five children, unaccompanied by their parents, responded to the questions. Not all questions were answered by the children and in some questions several responses were given. The response, and the number of times it was mentioned, are listed below. The most frequently occurring responses are listed first.

Question #1: Do you like school?

Yes	18
Okay or so-so	3
Sometimes	1
No	1

a) What things do you like about your school?

Gym	7	Trips
Doing work	4	Social
Other kids	3	Reading
Playground	2	Writing
Don't Know	2	Travel training
Teacher	2	Swimming
Recess		Brailling
Metric Math		Rug hooking
Math		

b) What things don't you like about your school?

Nothing	10	Colouring
Work	2	Teacher
English		Mean kids
Spelling		Vice-principal too strict
Math too easy		Doesn't like to fight

Question #2: Are you learning a lot in school?
What kinds of things do you learn?

Yes	15	
Reading	11	Sewing
Math	9	Printing
Spelling	4	Music
Phonics	3	Braille
Writing	3	Health
Science	2	Shop
Gym	2	Work
Play	2	

No	3
Repeating what I know	
Staying at the same level	
Could learn more	

a) What are your best subjects?

Reading	8	
Math	8	Printing
Phys. Ed.	5	Rug hooking
Art	5	Shop
Music	3	Telling time
Social	2	Phonics
Spelling		

b) What subjects give you the most trouble?

Math	8	Gym	2
Reading	4	None	2
Phonics	2	English	
Spelling	2	Writing	
Science	2	Making things	
Social Studies	2		

Question #3: Do you have many friends in school? ·

Yes	17	
Children in the same class		13
Children from own and other classes		8
Children in different classes		1
No friends at school		1
No friends		2

a) Do you get along well with other children?

Yes	17
No	4

- others tease her badly
- few children her own age in the area
- very shy

Question #4: Do you have a good teacher this year?

Yes	23	
Teachers help a lot		24
Teachers are strict		19
Teachers not so strict		4
We learn well in class		21
There is too much repetition		2

Question #5: Would you rather be in a different school?

Yes	14
No	7
I don't know	1

a) What would be different in a new school?

Different people	7
Back to old school and friends	5
Be in a regular class	5
Larger class	3
No phonics or spelling	3
There would be snacks	2
Could walk to school	
Be with hearing children	
Like changing schools	
Have a new teacher	

b) What would be the same as your old school?

Teachers	3	Same kids
Reading	2	Speech therapy
Gym	2	Bingo
Sports	2	

c) Are there things you would like to change in your school to make it a better place for you?

Yes	2
More shop and gym	
Too abstract	

Question #6: What are the very worst things about your school?

Nothing	2	High school beside us
Kids teasing	2	Kids asking for money
Stolen wallet		Boys
Kids swearing		Afraid of vice-principal
A lot of fighting		It's an old school
Attitude of teachers		

Question #7: What are the very best things about your school?

Field trips	3	Nothing
Art	2	Recess and lunch
Playing	2	Class work
Friends	2	Football
Gym		Being busy
Janitor's jokes		Writing
Shop		Getting there early

SUMMARY OF THE FINDINGS FROM INTERVIEWS WITH CHILDREN

Handicapped children are generally satisfied at school. They have slight preferences for play related activities which keep them busy and wish to avoid "difficult" subjects or unfavourable social contacts.

The children indicated that much of what they learn in school reflects basic literacy skills. Three children felt they could be learning more.

Most of the children developed friends at school, predominantly from their own class. Some had friends in other classes and most felt they got along with the other children. Only four children expressed difficulty making friends.

Satisfaction with the teacher and present school arrangement was generally high. The responses of the children suggest that they are unaware of any differences in their present or desired school arrangement as long as they can cope with their school work and avoid unfavourable social interactions.

It must be noted that the above findings are very tentative and should be considered suggestive of children's satisfaction rather than definitive statements concerning desired school placement.

Report #10: NON-CALGARY SCHOOL SYSTEMS

A Report of Telephone Survey of Five Canadian
School Systems on Integration Activity

Concerning: Definitions of Integration
Extent of Integration
Impact of Integration
Resources Required to Support Integration

What is the current status of integration in selected school systems in Canada?

TABLE OF CONTENTS

Page

Introduction 10-4

Methods 10-4

- Rationale for Surveying Other School Systems 10-4
- Objectives of the Survey 10-5
- Data Sources 10-5
- Survey Design 10-5
- The Instrument 10-6
- The Sample 10-7
- Data Analysis 10-7

Findings: Current Programs to Support Integration 10-7

- System A 10-8
- System B 10-10
- System C 10-16
- System D 10-17
- System E 10-17

Findings: Special Topics Related to Integration 10-19

- Topic A - Definition of Handicapped Student 10-19
- Topic B - Definition of Integration 10-20
- Topic C - Operational Differences Between Regular and Integrated Programs 10-22
- Topic D - Advantages and Disadvantages of Integration . 10-24
- Topic E - Philosophy, Needs, Goals and Objectives of Integration 10-25
- Topic F - Methods for, and Results of, Measuring the Amount, Degree or Extent of Integration . . . 10-27
- Topic G - Staff Training for Integration 10-30

Page

Topic H - Special Staffing, Equipment, Materials Facilities, and Services for Integration . . . 10-31

Topic I - Methods for, and Results of, Evaluating the Impact of Integration 10-33

Topic J - Methods for, and Results of, Estimating the Costs of Integration 10-35

Summary and Discussion of the Findings 10-36

APPENDIX - Listing of Advantages and Disadvantages of Integration: By School Systems 10-39

LIST OF TABLES

Page

Table I: System B: Maximum Allowable Rates For Provincial Funding of Special Study Programs 10-12

Table II: System B: Application for Provincial Funding of Itinerant Teacher 10-13

Table III: System B: Number of Handicapped Pupils in the Schools; by Handicap, Degree of Integration (percentage of time); and School Level 10-15

Report #10: Non-Calgary School Systems

What is the current status of integration in selected school systems in Canada?

INTRODUCTION

This report forms one section of the larger study, titled An Evaluation of the Integration of Special Education Students into the Regular Classes of Calgary Board of Education. The subject of this section of the study is the extent to which other Canadian school systems, similar in size to that of Calgary, have attempted and/or achieved the integration of handicapped children into their regular classes. Five school systems, selected on the basis of equivalent numbers of students, were chosen for study, and the superintendent of their Special Education departments was contacted for interview. Interviews were all conducted by telephone, and lasted approximately 45 minutes. This report presents the results of those interviews in full.

The Methods section following provides a more detailed account of research methods. Findings: Current Programs to Support Integration presents an overview of the present programs of integration in each of the five school systems. Findings: Special Topics Related to Integration presents a detailed report of findings, following the question-by-question structure of the interview schedule. A summary discussion of the findings follows. The Appendix, at the back of the report, provides a detailed listing of the advantages and disadvantages of integration, as perceived by the respondents to the interviews.

METHODS

Rationale for Surveying Other School Systems. Some of the tasks of the larger research study were designed to assist the Calgary Board of Education (CBE) and the research team to clarify the nature of the integration problem, and to assist in the formulation of strategies for solving it. Report #1, a detailed account of the literature review, and Report #3, which reports the findings from interviews with interested parties in Calgary, serve these purposes.

Similarly, this report was designed to expedite analysis of the problem at hand. In addition, the research team believed that it was important to describe the extent of integration in other systems for two more reasons:

i. Accountability: It was important, in our opinion, that this study present the CBE with information which could be presented to the citizens of Calgary, on how CBE practice compares to that in at least a small number of comparable Canadian school systems.

ii. Influence on Decision-Making: Information provided by those systems which are currently involved in programs of integration, or which may have been involved and have discontinued integration, may be helpful to the CBE as it shapes future directions in Calgary.

Objectives of the Survey. This component of the study was guided by four specific objectives approved by the study's Steering Committee. The objectives were:

1. to document the current status of integration of handicapped students in five (5) Canadian school systems similar to the Calgary system;

2. to compare the current status of integration in those systems with the Calgary system;

3. to present the views of the Directors of Student Services in those systems about the effects of integration on pupils, teachers, and parents; and

4. to summarize the estimated cost of facilities and staff for the program of integration in those systems.

Data Sources. Two types of data were elicited in the survey. The primary data source was the opinions of the Directors of Student Services of the five school systems. These opinions were sought and recorded using a questionnaire that included both structured and semi-structured questions. Where it was appropriate, the Directors were asked to forward documentation to further amplify and clarify perceptual data. Documentation forwarded has served as a secondary source of data. Both types of data are reported in the Findings section of this report.

Survey Design. The design employed was a simple descriptive survey. Procedures were initiated by forwarding a letter to the Chief Superintendent of each of the five school systems. The letter described the contractual agreements of the larger study, it outlined the objectives to be accomplished by the present survey, and it specified the type of participation which would be required if the system agreed to take part in the study. The Chief Superintendent was then asked to nominate an individual with sufficient knowledge to respond to specified topic areas, and to forward a letter which authorized telephone contact with that individual. All systems willingly agreed to participate, and in all cases the Director of Student Services or his equivalent was nominated to respond to the interview.

A telephone call was placed to each prospective respondent as soon as a letter of permission was received. Respondents were introduced to the objectives and methods of the survey at this time, and an appointment was arranged for the full telephone interview. Following this initial phone contact, a copy of the interview schedule was forwarded along with a cover letter which confirmed the data and time of the main telephone interview. Telephone interviews were conducted approximately two weeks following the initial phone contacts with respondents.

The Instrument. Preliminary data from Report #1 and #3 of the larger study, and consultation with the study's Research Advisory Panel, were helpful in designing topics and items for the interview schedule. After initial preparation, the schedule was reviewed by members of the study's Steering Committee, by CIR staff and by the Research Advisory Panel. These individuals were asked to note any items which were ambiguous or difficult to understand. Dr. C. Sangster also reviewed the questionnaire, commenting particularly on the possible inability of Directors of Student Services to provide the type of information requested. When the results of the review procedure had been incorporated into a final revised product, the instrument was approved for distribution by the Project Monitor, Mr. G.F. Fowler.

The final schedule contained lists of questions under the following topic headings:

a. Definition of Handicapped Student

b. Definition of Integration

c. Operational Differences Between Regular and Integrated Programs

d. Advantages and Disadvantages of Integration

e. Philosophy, Needs, Goals and Objectives of Integration

f. Methods for, and Results of, Measuring the Amount, Degree, or Extent of Integration

g. Staff Training for Integration

h. Special Staffing, Equipment, Materials, Facilities and Services for Integration

i. Methods for, and Results of, Evaluating the Impact of Integration

j. Methods for, and Results of, Estimating the Cost of Integration

Topics a to d above were presented in semi-structured questions. Topics e to j were explored through structured questions with a closed set of responses.

The Sample. Information contained in the City Population 1971 Census Report and Provincial Annual Reports was reviewed to compile a list of school systems similar to the Calgary system with respect to enrollment and the populations of the cities which their schools served. A total of 21 systems were found that met the chosen criteria for inclusion. Statistical data on school enrollment and city population were compiled and presented to the study's Steering Committee. Steering Committee members were asked to review the list and nominate systems which, in their opinion, would most likely result in data being collected that were consistent with the objectives of the study. The sample selected consisted of Vancouver School District No. 39, Edmonton Public Schools, The Board of Education for the Regina Public School District No. 4, The Board of Education for the Borough of North York and the Protestant School Board of Greater Montreal. Hamilton Public School Board was selected as an alternate.

Data Analysis. Most of the information gathered during the interviews could be keyed directly to questions of the interview schedule. Discussion offered under the semi-structured questions was studied to capture the general tenor of the responses. The responses to the semi-structured questions are presented as summary statements, with supporting comments quoted directly or paraphrased from interview notes. Responses to structured items are reported according to frequency of response. Information from documents was summarized and included as appropriate.

FINDINGS: CURRENT PROGRAMS TO SUPPORT INTEGRATION

This section of the report is included to give the reader a background understanding of the nature of current activity with respect to integration in the five school systems. The information was not obtained in response to any one particular question of the interview schedule. Rather, it was sometimes provided as background data and sometimes in response to tangential questions during the interview. It has been pulled together to provide an overview of the special education provisions in each school system.

The systems have been lettered A through E to allow references to specific systems in other chapters of the report.

System A System A does not work under a formalized, broad policy statement on integration of the handicapped. However, its Department of Pupil Services maintains a philosophical stance towards integration if and where possible, and it provides a wide net of backup services and programs. To quote from a paper prepared by the administrative staff: "The major goal of Special Education is to provide programs designed to reduce the handicapping effects of various disabilities in as normal an environment as possible." Decisions concerning integration versus segragation of any one particular child are made on the basis of consideration of the needs of the child, special services required, capacity of the regular classroom to absorb a handicapped child, parental concerns, transportation facilities, etc.

The individual describing this system commented that there may have been more integration in the system ten years ago than there is today; however, the education may therefore have been inferior. The resources which enabled the system to partially or fully segregate the children, have allowed these same children to be taught more skillfully than was the case previously. From that point of view, the segregation-integration issue is always seen as a continuum of many choice points. To prescribe either one or the other for all or for groups of children would be in error.

Recent directives in this system relevant to integration have been:

1. an encouragement that, wherever possible, handicapped pupils at least work on the same day schedule as the regular classes. i.e., recess, lunch and class period times would be concurrent.

2. within the past two years, a trend to move handicapped students into larger schools. In the smaller schools, they tended to become overwhelmingly conspicuous.

3. remedial reading is provided through resource rooms in all elementary schools.

4. "differentiated" classes within the regular junior high schools provide remedial or alternative forms of instruction/curriculum for low-achieving students in mathematics and language arts.

5. the hearing and the visually impaired are nearly all integrated in the post-elementary grades.

A complete listing of special programs provided by this system was forwarded by the interviewee. A summary follows:

1. Opportunity Class Program: for the educable mentally handicapped, defined as I.Q. from ±55 to ±75. Primary (ages 5½ - 9) and junior (ages 9 - 12½) classes are located in selected elementary schools. A six-year program for ages 12½ - 18 is pro-

vided at a vocational school. It provides academic upgrading to the extent possible, and prepares students for employment through a vocational training and work experience program.

2. Hearing Impaired Program: appropriate teaching methods, speech therapy and audiological services are provided. Integration into regular classes is effected wherever possible, with itinerant teacher support provided in these cases.

3. Visually Impaired Program: appropriate teaching methods through several media provided. Integration into the regular program is achieved whenever possible.

4. Trainable Handicapped Program: for the trainable mentally retarded, defined by I.Q. less than ±55. These individuals are not expected to be able to live and work independently as adults. This program includes liaison with community agencies offering services for this group.

5. Gifted Student Program: offers ½ day per week of enrichment activities for gifted elementary children. A gifted student is defined by I.Q. greater than ±130.

6. Institutional Services: appropriate instruction is provided on a contract basis in fourteen hospitals, detention homes and residential centres in this city.

7. Homebound Program: this program serves students who, for physical or mental health reasons or pregnancy, are confined to home. High school students generally take courses by correspondence. The program also offers a day-school for pregnant girls.

8. Adaptation Class Program: this program is designed for elementary students who have been diagnosed as learning disabled. Curriculum is based on that followed in the regular classes, with students entering at levels where they can work successfully. Students who upgrade sufficiently are returned to regular classes. Those who cannot attain regular class competence are referred at age 12 to the Pre-Vocational program.

9. Pre-Vocational Program: this program serves junior high students who are not achieving in the regular programs, yet are not considered to be educably mentally handicapped. It provides an entire curriculum as alternative to the regular. Academic subjects are greared to the students' abilities, and preparation for entry into Trades and Services education at the high school level is stressed.

10. Differentiated Junior High Program: provides the means to differentiate Language Arts and Mathematics instruction between low-achieving and normal-achieving students.

11. Resource Room: provides remedial Language Arts instruction for elementary children. The model employed provides specialized instruction to the children for one period of the *normal school day. The remainder of the day is spent in regular programming. These children are of average or above average general ability, but are not performing to expectation in the language areas.*

System B. System B is the only one of the five considered in this study which works under a formalized Board policy on integration of the handicapped. It is located in a province which has a well-developed system for accounting and funding the enrollment of special students, and so this system has provided us with more statistical information than any of the others. The following paragraphs are based on documentation forwarded to Calgary by the respondent.

We refer here to two excerpts from minutes of the Board:

i. in March, 1974, a motion was passed regarding the provision of special assistance for the learning disabled. The motion is a lengthy three pages. Essentially, it asserts that the Board will take advantage of provincial grants to provide either itinerant teacher support or special classes for the children. Specifically, the Board announced its intention to establish:

a) *Extended readiness classes* for kindergarten children who are not ready for Grade 1.

b) *Free-flow program:* i.e. at the elementary level. This is the provincial term for itinerant teachers.

c) *Special classes at the elementary level for children with learning disabilities whose needs cannot be met by the free-flow program.*

d) *Extended Grade 6 classes for children not ready to enter secondary school for want of basic learning skills.*

e) *Free-flow program at the secondary level.*

f) *Special classes for learning disability students at the secondary level whose needs cannot be well met by a free-flow program.*

The motion includes a statement which makes explicit the priority of an integrated approach: *It is important to recognize that special class placement should only be made when free-flow help has proven to be inadequate to meet the child's needs while he remains in the regular class.*

The motion continued with a statement of recognition that there was a shortage of qualified teachers, and with a recommendation that the Board "...*take all possible steps to encourage more teachers to become qualified for special education assignments for* *children with learning disabilities."* Specific steps, such as contracting with Universities for additional courses in Special Education and increasing the Professional Improvement Fund, were included in the recommendation.

ii. in March 1975, a motion was passed which referred back to an earlier motion of 1974. The 1974 motion apparently outlined objectives of that school system. The March 1975 motion confirmed that those objectives also applied to the handicapped: *"The objectives as stated in ... are for all children including those for whom exceptional measures are required.*

The (Board) *has a fundamental responsibility to provide an appropriate programme for each child designed to enhance his personal worth and dignity and to minimize feelings of isolation and rejection.*

We are also in receipt of the statement of regulations and claims forms from the pertinent provincial government. The statement of regulations does not provide information on the extent of financial subsidy. However, it does indicate the criteria for funding. The two pages following are copied from the statement. Table I shows teacher/pupil ratios and allowable rates of incidence by disability for "special study programs". Table III-2 shows information required, in part, for a free-flow formula grant. Evidence of professional assessment of the child, proof of certification of the teacher, and a statement of intention to cooperate from the principal of the school involved must also be submitted.

10-12

Table I: System B: Maximum Allowable Rates for Provincial Funding of Special Study Programs

TEACHER/STUDENTS RATIO - RATE OF INCIDENCE

CLASSIFICATION OF GROUPS	MAXIMUM INCIDENCE	TEACHER/STUDENTS RATIO		
		KINDER-GARTEN	ELEMENTARY JUNIOR	SECONDARY
Extended Readiness	15%		1:15 11-20	
Learning Disabilities (remedial class) . .	4%		1:15 11-20	
Learning Disabilities (free flow)			1:15	1:12
Severe Learning Disabilities	0.5%		1:12 8-16	1:12 8-16
Educable Mentally Retarded	3%	1:15 11-20	1:15 11-20	1:12 11-20
Trainable Mentally Retarded	0.5%	1:8 4-12	1:8 4-12	1:6 4-12
Motor Disability	0.5%	1:8 4-12	1:12 8-16	1:12 8-16
Cerebral Palsy (moderate)		1:6 3-8	1:6 4-12	1:6 4-12
Cerebral Palsy (severe)		1:6 3-8	1:6 4-8	1:6 4-8
Physical Disabilities		1:6 3-8	1:8 4-12	1:8 4-12
Epilepsy (non-medically controlled)		1:6 3-8	1:8 4-12	1:8 4-12
Hard of Hearing	0.7%	1:6 3-8	1:8 4-12	1:8 4-12
Deaf		1:6 3-8	1:8 4-12	1:8 4-12
Partially Sighted		1:6 3-8	1:8 4-12	1:8 4-12
Blind		1:6 3-8	1:8 4-12	1:8 4-12
Severely Emotionally Disturbed	1%		1:8 4-10	1:8 4-10
Multiple Handicaps	0.2%	1:6 4-10	1:6 4-10	1:6 4-10

N.B. In each division, under the heading "Teacher/students ratio", the lower left hand figure indicates the minimum number of students per class and the lower right hand figure indicates the maximum number.

(Non-Calgary Systems)

Table II: System B: Application for Provincial Funding of Itinerant Teacher

Information concerning the schools affected by the free flow formula

GENERAL INFORMATION

Name of School ______________________________

Address ______________________________

Level of Teaching: Elementary (6, 7 & 8 yr. olds) ☐

Elementary (9, 10, 11 & 12 yr. olds) ☐

Elementary ☐

Secondary ☐

Number of Students ☐ Total No. of groups or classes ☐

Placement by grade ☐

Continuous progress ☐

Open Area school yes ☐ no ☐

Number of Administrators in the school ☐

Total number of teachers ☐

ORGANIZATION OF SPECIAL EDUCATION (RE-EDUCATION)

Number of students for whom an evaluation has indicated learning difficulties (ref: 08-02-08-5b &5c) ☐

Generalized pedagogical retardation (2 yrs. and more)

Specific Disabilities: Speech & language problem ☐ (number)

Dyslexia (severe reading difficulties) ☐ (number)

Severe difficulty with Mathematical symbols ☐ (number)

Dysgraphia ☐ (number)

Psycho-motor disabilities ☐ (number)

Others ☐ (number)

Number of hours per week devoted to remedial education: Minimum: ☐

For each remedial group Maximum: ☐

Number of hours per week devoted by the Special Education teacher in consultation with regular class teachers ☐

Number of Special Education teachers involved in the school ☐

Professional qualifications of the Special Education (free flow) teacher (for each teacher attach official attestations)

1) ______________________________

2) ______________________________

3) ______________________________

We do not have a complete description of all the Special Education programs in this city as of 1977. From the statistics which we will present below, it is clear that some of the March 1974 recommendations have been implemented, but we do not know exactly which ones. The respondent did forward to us copies of the September 30, 1977 count of enrolled handicapped pupils, on a school by school basis. The percentage of time integrated is shown in these statistics. From telephone conversations, we learn that most of the children shown as 75-95% integrated are working with an itinerant teacher for a part of their day, whereas those shown as 5-24% integrated are likely to be in special classes. As the figures following Table III-3 below indicate, this system also provides instruction to hospitalized or detained children who are not in school at all. We have aggregated the statistics for elementary and secondary schools separately, and present them in Table III.

Inspection of Table III indicates that all but 10 of the city's elementary schools and all but 2 of its secondary schools have some integrated handicapped pupils. (There are some special schools in this city which are exclusively for the handicapped. We do not have statistics on these schools.) The learning disabled are the group with the highest frequency. The mild learning disabled tend to be elementary pupils who are almost fully integrated;they are probably receiving itinerant assistance for a portion of their school day. The severe learning disabled tend to be integrated for less than half the day at the elementary level; however, the majority of this group at the secondary level are integrated almost fully. Perhaps the activity of the itinerant teacher at the secondary level has moved to the pupil with a more severe disability. Only 6 children with visual impairment are integrated. The mildly retarded, some emotionally disturbed children and those classified as multiple handicapped are located in regular schools.

System B was able to forward one more document of particular interest. This system is presently in the process of cooperating with a local university in a large research and development project dealing with special education generally. The respondent forwarded a copy of the critical path diagram for the study. The study moves from an assessment of existent programs, to the formulation of advisory policy committees, to the determination of student and teacher populations and materials, to the development of teacher training and instructional programs, to the implementation of a learning centre, to the establishment of an evaluation/feedback loop. It is a large study which should produce extensive data materials and statements of rationale. The critical path diagram does not carry projected dates out to the end of the study. It does indicate that planning began in late 1977 and that selection of the advisory committees should be complete by January 30, 1978.

Table III: System B: Number of Handicapped Pupils in The Schools; By Handicap, Degree of Integration (percentage of time); and School Level

Elementary Schools							Secondary Schools					
0-4%	5-24%	25-49%	50-74%	75-95%	TOTAL		0-4%	5-24%	25-49%	50-74%	75-95%	TOTAL
33	30	13	7	1598	1681	Mild Learning Disability	--	16	86	22	13	137
44	101	51	45	11	252	Severe Learning Disability	28	45	80	46	391	590
46	76	2	4	1	129	Mild Retardation	--	179	--	--	--	179
--	--	--	--	--	0	Moderate Retardation	--	25	--	--	--	25
6	--	1	--	1	8	Social-Economic Dysfunction	--	2	12	9	10	33
4	--	--	--	2	6	Visual Deficiency	--	--	--	--	--	0
--	--	--	--	--	0	Auditory Deficiency	--	--	--	--	--	0
--	--	--	--	--	0	Severe Cerebral Palsy	--	--	--	--	--	0
--	--	--	--	--	0	Other Physical Disabilities	--	--	--	--	--	0
52	23	3	5	3	86	Multiple Handicaps	--	102	--	--	--	102
185	230	70	61	1616	2162	TOTALS	28	369	178	77	414	1066

Total number of schools: 72
Integrated schools: 62
Per Cent Integrated: 86%

Total Number of pupils: 25,016
Integrated pupils: 2,162
Per Cent Integrated: 8.6%

Total number of schools: 23
Integrated schools: 21
Per Cent Integrated: 91%

Total Number of pupils: 21,859
Integrated pupils: 1,066
Per Cent Integrated: 4.9%

Total Enrollment of System B:

25,016	elementary
21,859	secondary
359	Social Affairs (hospitalized, detained)
47,234	

Integrated Pupils: 3,228 (2,162 + 1,066)

Per Cent Integrated: 6.8%

System C. System C, like the System A previously discussed, is actively working in the direction of maximum integration of the handicapped; and it also provides many types of resource services. General policy guidelines have not been approved in System C, but they may be considered by its Board within the next year or so. The respondent from System C mentioned that jurisdictional problems between the local School Board and the provincial Social Services department are presently an issue before the Board. In the recent past, some children who were normally cared for through a Social Services program are beginning to move into the school system, and the local School Board is running into financial difficulties as a result. Once the issue of financial support for the care of these children is resolved, the respondent expected that the Board would move to consider overall policy for handicapped integration.

In anticipation of Board affirmation, this school system is increasing, whenever possible, the extent of school integration. The interviewee mentioned the concept of "mainstreaming" several times during the interview; in this system, the word "mainstreaming" defined as "educating the child in the least restrictive environment", is used in preference to the word "integration". The mainstreaming concept implies actual integration when feasible, and System C follows this approach. Extent of integration for any one child is determined through an extensive conference, case-by-case approach.

Comments are provided on the following programs:

1. The Trainable Mentally Retarded (T.M.R.'s): instruction is provided in school designated solely for T.M.R.'s. The system is starting to provide off-campus T.M.R. classes, where "off-campus" means "within a regular school". There are now 5 off-campus T.M.R. classes, an increase from 3 two years ago. The off-campus T.M.R. students integrate with regular classes for art, physical education, etc.; they are generally encouraged to mix as much as possible.

2. Non-Developmentally Ready Children: these are the severely retarded, many of whom cannot feed, clothe or toilet themselves. They are integrated into the T.M.R. school with the less severely retarded pupils. The interviewee predicts that the T.M.R. school may gradually fill up with Non-Developmentally Ready Children, while the T.M.R.'s phase into off-campus settings.

3. Visually Impaired: most are in regular classes, with itinerant teacher support provided for the regular teacher.

4. Hearing Impaired: most are in regular classes, with itinerant teacher support provided for the regular teacher.

5. The Educable Mentally Retarded (E.M.R.'s): slow learners. There is a learning assistance model, similar in concept to the "resource room": in other systems, designed to assist these children to remain in regular classes whenever possible. Over the past few years, the number of segregated special classes for slow learners has been reduced from 54 to 35.

6. Facilities for emotionally disturbed children are provided in nine separate classes in regular schools.

7. A Home School Teacher is available for children confined to home. Recently, some of these children who were confined for an emotional or handicapping problem have been returned to this regular school with the home school teacher then functioning as consultant to the regular teacher and the child for an hour per day.

This interviewee did not discuss how these programs are differentiated between the elementary and the secondary school levels.

System D. The interviewee from System D stated that the system "had been a leader in the area of normalization for many years". However, the system has never felt the need to formally define criteria or procedures on a system-wide basis. Integration is pursued whenever possible, possibility being determined on a case-by-case basis according to student ability, appropriate placement availability, resource back-up, etc. Usually, no more than about twelve physically handicapped students will be placed in any one school, in order to avoid the labelling of the school as a place for the handicapped. Special equipment such as ramps or modifications to the bathroom is installed as required. The definition of integration adopted by this system follows: "providing education for the handicapped student in his/her own home and/or neighbourhood school to the maximum degree possible. For some, this means a regular grade with modifications; or (it may mean) a special class with modifications; or staff support or materials". There is a deliberate attempt, when integration has been achieved, to keep the handicapped child in a low profile position. This individual mentioned many advantages and relatively few disadvantages of integration.

Details of all programs fielded by this system were not provided with the exception of those for the visually impaired. These children are taught preliminary intellectual and social skills including Braille reading in segregated settings. They are then moved into regular classrooms where they continue with itinerant teacher support.

System E. The Board of this school system has recently appointed a Goals Committee to investigage the entire area of goals for education of the handicapped. At present, this system practices

some integration and some segregation of its special students. Some special programs operate through the neighbourhood schools, while others require transportation of students. A description of programs follows:

1. Deaf Children: a class for the profoundly deaf operates in one city school. The children are taxied to the school. The less severely hearing impaired are integrated into regular classes in their neighbourhood schools, with itinerant resource support provided. This latter group were formerly taught in a segregated class; the class was disbanded two years ago.

2. Visually Impaired: at the secondary level students are integrated into their regular classes, in home schools receiving itinerant consultant help.

3. In-School Tutor Program: assists children with learning disabilities. These children are removed from their home room for specialized teaching on a schedule of ½ hour periods for 3-4 days per week. Approximately 900 children are currently in the program which is serviced by 20½ tutors. The tutors also function as consultant to the regular teachers. The In-School Tutor program replaces previous Special Learning Disability classes which were disbanded 4 or 5 years ago.

4. Learning Resource Centres: there are 2 of these permanent centres, located in different schools. Children are fed into the centres for periods of up to 50% of their school day, returning afterwards to the regular classes in the same school. The centres operate under the Madison Plan, which provides, for example, methods of increasing the attention span of disabled children.

5. Special Education classes (auxiliary classes): these are for the slow and retarded children, and are segregated. Attempts have been made to integrate the children, but to date the attempts have not been successful. The interviewee mentioned teacher preparation and attitudes as problems.

6. A variety of specialized programs and classes exist:

a. Alternative School Program (A.S.P.): this is a class for chronic truants, located in an area of the city where truancy is high. Students from other neighbourhoods are bussed in if required. There is some measure of integration with regular programs, with intention to return to normal programming when skill levels and attitudes are appropriate. Curriculum is both academic and vocational.

b. Modified Classes: 2 classes for Grade VI and up, for children who are weak in basic skill areas. Classes are small, with some integration back to regular classes.

c. Pre-Junior Class: set up initially to accept young children who were not ready to move into academic grades. Parental wishes that the children not be held back grade levels has changed the original focus of the class, and it now deals more with the slow and/or retarded.

7. English as a Second Language (E.S.L.): students taking E.S.L. programs spend their entire day working out of one school. Previously, E.S.L. teaching was held in the mornings at a cental location with students returning to home school in the afternoons. This created problems with the students "now knowing to where they belonged." Consequently, E.S.L. students now spend all their day in a centralized location until they no longer have need of the E.S.L. classes.

8. Quiet High School Drop-Out Program: this program serves high school students who have dropped out from psychological difficulties such as feeling uncomfortable in large schools. The program is held off-campus and provides tutorial assistance for correspondence courses. Students generally attend regular classes for 1 or 2 subjects. The program attempts to move students back to the regular classes as quickly as possible.

9. Behaviour Problem Children in Group Homes: these children are generally integrated in a neighbourhood school close to the group home.

FINDINGS: SPECIAL TOPICS RELATED TO INTEGRATION

The information presented in this chapter was obtained in response to the question-by-question path through the interview schedule. From the system descriptions in the preceding section, the reader will have noted that all of the five systems do in fact field a considerable number of services for their special students. This chapter will indicate that the systems can be differentiated by the extent to which they have formally rationalized their special education services, and the extent to which integration resources are distributed among their schools.

Topic A - Definition of Handicapped Student. Responses to the question, *What does the term "handicapped student" mean to you?*, showed a high degree of consistency. Generally, respondents were agreed that: the handicapped child is a child with capabilities differing from the average to some marked degree; the extent of deviation from the average necessitates either modifications in regular school practices or provision of special services; and the object of these modifications and/or services is to assist the child to develop to his/her maximum capacity.

Excerpts from the interviews follow:

System A. A handicapped pupil is one who for a variety of reasons requires additional resources or services, i.e., modifications in facilities, curriculum, special equipment, etc. in order to function optimally in regular classrooms; or in special classrooms in regular schools.

System B. We generally consider a child to be handicapped if he falls into one of two types of categories. If a youngster is having serious problems of some kind and if those problems are great enough to demand some kind of special response from our school system, we consider that child to be handicapped in the moral sense, i.e., no special funds are available provincially - our system feels "morally" obliged to respond. On the other hand we may have students who have clearly defined needs that come within provincial funding guidelines for the handicapped. In such instances, our system is "legally" compelled to respond. Thus, we define this group of children in the legal sense.

System C. Anyone who has some physical and/or intellectual and/or emotional components that hinders the regular growth or progress of a child.

System D. Handicapped students are those who have physical, intellectual, communication, social and emotional abilities different from those of other students which necessitate curriculum modifications and/or special services in the schools.

System E. A handicapped student is basically a student with a disability. Here I mean an impairment of structure or function so that the cumulative effects of the disability plus the personal and social consequences, have a detrimental effect on his performance or his functioning level. If you want to take a look at it in terms of exceptionality you might say one who deviates from the average or so-called normal in either mental, physical or social characteristics to such an extent that he requires a modification in school practices. This includes special education services. Such service is designed to help him to develop to maximum capacity. These two generally are what I regard as the handicapped. (I am looking at exceptionality not in terms of the gifted of course, that is everything but the gifted.)

Topic B - Definition of Integration. In this section, respondents were asked the question, *What does the phrase "integration of handicapped students into regular classes" mean to you?* Replies tended to emphasize the individualistic nature of the concept. What is integration for one child may not be integration for another. Extent of integration must necessarily differ from child to child, depending upon both the type and severity of handicap and upon resources available within the schools. As one individual chose to express it, the needs of the children and the capabilities of the school system exist along two continua. There is a certain point common to these two continua where level of service delivery represents the best fit of both system capacity and child need.

Generally, integration implies that the handicapped child will work along with or parallel to his/her peers. It may include movement of the handicapped pupil at more than one level in the system. For example, movement of the handicapped into their own neighbourhood schools, or from a special class into a regular class, could both be classed as "integration". In other words, "integration" does not have one unique single common meaning within the five systems; it is, rather, a word used to refer to more than one step in the larger process of returning any handicapped child to education with his peers to the maximum extent possible.

Excerpts from the interviews are provided below.

> *System A. Integration means the placement of handicapped students in regular classes so that the handicapped child can function (cope) in the classroom and so that the education of that child does not interfere with the education of regular students. You must realize that there is a continuum along which the handicapped student fits best. The greater the degree of the handicap the more support services needed. We assume that there are extra resources and materials available.*
>
> *There is a difference between academic and social integration. A child may integrate well academically, but not socially; or vice versa, may integrate well socially but not academically. The whole idea of integration is somewhat contradictory, by this I mean that if you are truly integrated then you are no longer handicapped, i.e. a child in a wheelchair in a regular classroom is not necessarily a handicapped student. He may need some special arrangements for bathroom facilities, for phys. ed., and things like this. In actual fact, that child might be less handicapped than a child suffering from some kind of learning disability which is not noticeable. It is not necessary to talk about integration at all unless you admit that there is something different about the child.*
>
> *System B. The phrase "integration of handicapped kids into regular classes" has several dimensions: (1) it can be the youngster in a regular class who is handicapped, who needs to have support in a regular class or; (2) it can be a youngster who has been identified as special; coming from a special class, going into a regular class. Youngsters identified as handicapped in the moral sense from a regular class situation, into a regular class situation with support. If in the official (legal) sense he is declared special, he then goes from a special class into a regular class.*
>
> *System C. Basically to work along with or parallel with the peer groups. (Peer in terms of age and general ability or at least potential ability).*

System D. Integration means providing education for handicapped students in their own home community and/or neighbourhood school to the maximum degree possible. For some this means a regular grade with modifications or a special class with modifications, e.g., staff support, materials, etc.

That question is not an easy one to respond to. Integration is a highly individualistic concept. What is integration for one student is not necessarily integration for another. For an extremely handicapped youngster, it may just be getting him to cope in the regular school for an hour. Not necessarily in his own area but in some place with gradually the thought that normalization might be possible by way of some additional time and/or resources. I suppose I could sum it up by saying we place a lot of support in Deno's Cascade Model. We wish to find the least restricted environment available for the child with special studies and special things we would try to move him up on the scale and with the least restrictive environment.

System E. It means participation in regular classes located either in the home school (or the neighbourhood school, as it is called now) or in another city school, on either a part-time or a full-time basis (usually on a part-time basis).

Topic C - Operational Differences Between Regular and Integrated Programs. The information reported below was offered in response to the question; *Based on your experience, how do you see programs that integrate handicapped children into regular classes differing from programs that segregate them from regular classes?*

Respondents tended to interpret the question in different ways. System E responded by using the question as an opportunity to describe, in detail, the various integrative programs run by his school system. System D responded in terms of apparent differences between regular classes with and without registered handicapped children. In the opinion of the individual from System D, there is little noticeable difference between the two types of classes as the handicapped child is deliberately kept at low profile. System C commented that the question was impossible to answer, since the results of either segregation or integration can vary depending on the individual child, his/her peer group, the teachers involved and the philosophy of the school. The individual speaking for System C proceeded to note that segregated classes provide superior opportunity for specialized, individual programming and that the main advantage of mainstreaming is socialization.

The respondent from System B, unlike his four counterparts, had a ready answer to the question. In his opinion, the biggest difference lies in the area of responsibility and accountability, with this issue moving back from teacher levels up to administrative controls. In a special class, responsibility for the child clearly lies with the teacher. In an integrated classroom with an itinerant teacher, where does the responsibility lie? The problem is the most difficult at the secondary levels, since secondary schools (high schools in particular) tend to be program-oriented rather than pupil-oriented.

System A answered the question in terms of the difference between pupils who would be integrated and those who would be segregated. The respondent from System A offered a list of the criteria used to determine placement in any particular case, and these are summarized below:

1. *the degree of severity of the handicap. As a general rule the less severe the handicap the more integration we do and can facilitate.*

2. *the type of handicap. Some types lend themselves more to integration than others, i.e., a blind child is easier to integrate than a deaf child. An orthopedic handicap is easier to integrate than either of these. We place the trainable handicapped in regular schools and in regular classes to some degree, but this is not an academic type of integration, rather they are integrated in art, music, school functions. Those are things which you could term social integration.*

3. *visibility of the handicapped is also important. It is much easier to integrate if the handicap is less visible.*

4. *the pupil/teacher ratio is another important factor to consider - the smaller the class size, the easier it is to integrate.*

5. *the experience, flexibility, and training of the staff must be considered. This whole thing relates to the ability of the teaching staff to accept children with these kinds of special needs. Most teachers are afraid to have handicapped children in their classrooms.*

6. *the school system philosophy must be considered.*

7. *another important consideration is parental wishes and expectations.*

8. *the availability of specialized and support staff, resources and facilities is important. As soon as children are integrated into regular classes, a greater number of support services such as itinerant teachers are required. Support from teacher aides, psychologists, speech therapists, social workers, may also be needed.*

9. *the school achievement level is another factor. If you intend to integrate children with learning problems into schools where the expectations for academic achievement is high, your chances of success with integration will be less. The gap is too large.*

10. pupil age. It is much better to being integration at an early age. Starting early they learn much more from their peers. They become part of the total school.

The information provided under this topic heading reinforces the conclusions drawn under the previous topic heading, namely, that integration is not an either/or question, and that decisions regarding extent of integration must involve consideration of both the needs of the child and the capacity of the school system.

Topic D - Advantages and Disadvantages of Integration. Respondents were asked to identify, on the basis of their experience with special education programs, the advantages and disadvantages of integration. *What have you found to be the major advantages and disadvantages of integrating handicapped children into regular classrooms?*

Respondents tended to simply list points on each side of the question, without stopping to weigh the importance or the frequency of occurrence of each point. The complete listing of points, in the order in which they were mentioned by the respondents, is attached in appendix form at the back of this report.

The following advantages were mentioned by at least two of the respondents:

: stigma and labelling are reduced (2 mentions)

: child can socialize with neighbourhood friends (3)

: child has appropriate and challenging peer models (2)

: child has a more balanced school life (2)

: others gain a better understanding of the handicapped (2)

: child encounters a normal life (4)

: self-confidence increases (2)

The following disadvantages were mentioned by at least two of the respondents:

: fragmentation of support services (2 mentions)

: cost (2)

: untrained teachers (3)

: needs of the handicapped not adequately met (3)

: lack of acceptance of the handicapped (3)

: self-concept suffers (2)

The advantages revolve around the benefits of the child of being involved in the life patterns typical of normal society. The disadvantages revolve around two axes: the possibility that the integrated child will not be accepted in the normal surrounding, and the possibility that he/she will not be as well-taught as in a segregated setting. Teaching difficulties centre around the ability of the regular teachers to absorb a handicapped child into the classroom, and the capacity of the resource teacher to continue providing good service when her contact with the child is reduced to an occasional basis. Financial and organizational demands underly some of the major disadvantages.

Topic E - Philosophy, Needs, Goals and Objectives of Integration. The questions under this topic heading all explored the extent to which the various school systems had developed formalized statements of policy and rationale to underly their integration practices. The questions were structured with five response categories open to respondents: No; No but this is being planned; Yes, but nothing has been written down; Yes and something has been written, but it is not available; Yes and it's written and available. Explanation and comment were invited.

> 1. *Has your school system developed a philosophy or statement of rationale and purposes underlying its approach to the integration of handicapped students in regular classrooms?*

System A. Yes but nothing has been written down. The school administration generally encourages the integration of handicapped pupils, and the individual speaking for System A mentioned several system directives which favour integration rather than segregation.

System B. Yes, and it's written and available. The reference here is to the Board resolutions quoted in the previous section.

System C. Yes and something has been written but it is not available. The relevant document is in the form of a confidential paper submitted to the Board early in 1977. The document outlines a comprehensive proposal for revamping Special Education services in the system.

System D. Yes but nothing has been written down. The respondent from System D noted that questions have been raised about the desirability of developing tight statements of rationale and using tight criteria to select youngsters for integration programs. There appeared to be some preference for having an open philosophy to allow diagnosis and prescription for each child on an individual basis.

System E. No but it is being planned. A goals committee had been established by this Board, and work should begin on this process in the near future.

In summary, one of the five school systems is working under a formal Board resolution on integration, one is working under confidential documents still being considered, one is just now beginning Board committee work, and two are functioning comfortably without a generalized statement of policy.

2. Ralated to that approach, has your school system assessed and summarized the needs of:

a. students?
b. parents?

System A. No attempt to assess the needs of either students or parents has been made in a formal sense. Assessment is done on an informal continuous basis.

System B. No attempt to formally assess the needs of parents, and No but this is being planned to assess the needs of students. System B has been attempting to approach the issue of student need indirectly, via the route of determining target competency levels for children as they pass through the system. Determination of competency level will of necessity include consideration of needs which must be met before that competency level can be attained. Much more work is required to complete the task of specifying competency levels.

System C. No attempt to assess the needs of parents, and Yes and something has been written but it is not available for the children. This individual mentioned that, although they had had many discussions with parents, there had been no formal assessment of their needs.

System D. No attempt to assess the needs of parents and Yes but nothing has been written down for the children. System D is beginning to pull together resources for student assessment, and is talking of doing a survey.

System E. No attempt to assess the needs of parents, and Yes and something has been written but it is not available for the children. The respondent was referring to reports received on the functioning of individual children who appear to be learning disabled.

3. Has a set of goals that are to be achieved by that approach been developed?

System A. No. No overall statements of goals exist, although goal statements have been developed for each of the individual programs.

System B. No but this is being planned. Goal setting will be done, in cooperation with a parenting committee, as part of the research and development project mentioned in the previous section.

System C. Yes but nothing has been written down. The goals for the children (i.e. target competency levels) are well-developed but are not prepared in written form. The goals for the parents tend to be resolved in groups according to each type of handicap. For example, the parents of the trainable mentally handicapped do not necessarily evolve the same goals as the parents of the visually impaired.

System D. Yes but nothing has been written down.

System E. No. "Not really".

In summary, two systems report no formalized overall goals, two others report that goals are well-developed but not prepared in written form, and one system is working to develop a set of comprehensive goals.

4. Have measurable objectives been stated outlining the desired impact that approach will have on:

a. handicapped students?
b. non-handicapped students?
c. school staff?
d. parents of handicapped students?
e. parents of non-handicapped students?

System A. No, for all groups.

System B. No but this is being planned, for all groups. The research project should have produced a statement of objectives by May 1978. The respondent agreed to forward it to Calgary at that time.

System C. No, but this is being planned.

System D. No. The respondent from System D expanded again on a concern which he had previously raised, namely, the possibility that, to become as systematic as this question seems to imply, is perhaps not desirable. He went on to explain that he felt that his board had been a leader in the area of normalization for many years. It had seemed that long before there was all this talk about integration, the handicapped had been in their schools just as a matter of fact, for as long as he could remember. Their system had never reached the point where a need was felt to specify a philosophy or to define objectives in measurable terms. He explained that they keeep careful reviews of students and monitor progress closely. Focus on the needs of individual children enables them to place students into situations where their needs can best be met. Overall, it appeared to him that they had been quite successful without getting too scientific or systematic and going to great lengths to measure what they were doing.

System E. No, for all groups.

No systems has developed an outline of measurable objectives of impact. Two systems are planning to accomplish such a task.

Topic F - Methods for, and Results of, Measuring the Amount, Degree or Extent of Integration. The first two questions under this topic heading again explored the extent to which systems had formalized their procedures.

1. Has your school system developed one or more indices or measures for determining the amount, degree, or extent of integration for each:

a. handicapped child?
b. school?
c. school system?

System A. Yes but nothing has been written down for all groups.

System B. Yes but nothing has been written down for all groups. Decisions are made on a case-by-case basis, taking class size, teacher competency and program content into consideration. Procedures have not been generalized.

System C. No, for all groups. The individual reporting for System C mentioned that, even though his answer was "no", he felt they had a very sophisticated system for identifying and screening handicapped children. Measures used tend to be determined not by research, but on the basis of success of the individual. Any problem identified is referred initially to a School Based Team, which either deals with the problem in that school or refers it to a Central Screening Committee for resolution. The process is monitored carefully in a subjective fashion, and some evaluation is "in the works".

System D. No, for all groups.

System E. Yes but nothing has been written down for the handicapped children, and No for the school and the school system. For the children, subjective types of measures have been devised.

To summarize, no system has developed a set of formalized procedures to measure extent of integration. The capacities of the school are taken into account, in a subjective sense, when an individual decision on placing a particular child must be made.

2. Has your school system developed criteria for determining which handicapped students to integrate into regular classrooms and which ones not to integrate?

Systems A, B and C all report Yes but nothing has been written down. System A's verbal description of criteria used is reported under Topic C of this chapter; System B mentioned consideration of student performance versus class level, equivalence of class and student achievement levels and learning styles, and use of a standardized (mal) adaptive behaviour inventory; and System C reports that its Central Screening Committee has developed criteria.

System D reports No; placement is too individualistic for criteria to be developed. System E reported Yes and something has been written but it is not available. This individual answered in the context of types of handicap, not of individual handicapped. i.e. some categories of handicapped will be integrated where possible, others will not because the system is programmed in that direction.

No system works under a set of formalized system-wide criteria.

> *3. Are data available on the extent of integration in one or more of your system's schools?*
>
> *4. How would you describe the current extent of integration in your system's:*
>
> *a. elementary grades?*
> *b. junior high grades?*
> *c. senior high grades?*
>
> *5. What is the desired extent of integration in your system's:*
>
> *a. elementary grades?*
> *b. junior high grades?*
> *c. senior high grades?*

System A. System A does not have data on extent of integration in a reportable form. The respondent estimated that more than 75% of schools at all levels had integrated eligible students. The respondent stated a personal preference for increase in extent of integration at all levels.

System B. System B keeps direct count of integrated handicapped students, "integration" being defined by the percentage of school time spent in contact with regular students. An estimate of integrated time is provided for every handicapped child in a regular school. The statistics, divided into returns from elementary and secondary levels, are shown in Table III of the preceeding chapter. More than 75% of both elementary and secondary schools have integrated handicapped students. The respondent refused to comment on desired extent of integration, noting that the desired extent must vary with the numbers and types of handicapped coming through the system. Extent of integration varies with the need. A further consideration is reaction from teacher associations and unions. In the experience of this individual, teacher unions can result in extremely slow progress in program implementation.

System C. Data on extent of integration is potentially available but has not been aggregated in total. "Integration" is generally measured as a change in status; e.g. from special to regular, from regular into regular-learning-assisted. The respondent estimated that more than 75% of the elementary and junior high schools had some integrated eligible students, while 50-75% would be a closer figure for the high school level. In his opinion, current levels of integration should be maintained at the elementary level and increased at the junior and senior high level.

System D. Some data is available on specific programs, such as foreign language instruction, but complete statistics on integration are not maintained. An extimated 25-49% of the elementary schools have integrated eligible students, with less than 25% among the junior and senior high schools. Desired extent of integration is higher than current extent at all grade levels; the system is working under a general mandate to implement the "least restrictive" model to the maximum extent possible.

System E. This system could readily provide a count of number of pupils enrolled in its Learning Centres. It does not have a total figure available on all integrated pupils. The respondent estimated that less than 25% of schools at all levels have integrated eligible students. He, personally, favors increasing the extent of integration at the elementary levels and maintaining current extent at the junior and senior high levels.

Only one of the five systems keeps regular count of integrated handicapped students. Estimates of numbers of schools with integrated handicapped students vary from less than 25% to more than 75%. From the percentage estimates of schools which have been integrated, a rough ordering of the systems according to extent of integration could be advanced; the order is, from lowest to highest, E, D, C and (A=B). Of the four systems willing to express an opinion, all favour either maintaining or increasing current levels of integration.

Topic G - Staff Training for Integration.

> *1. Has your school system identified the competencies instructional staff need so they can work effectively in regular classes containing handicapped students?*
>
> *2. Has your system developed in-service training materials (i.e., manuals, guidelines, handbooks) for helping instructional staff who lack specific competencies?*
>
> *3. Has your system developed structured in-service training programs for such staff?*

System A. No formal statement of desired staff competencies exists. Some in-service materials have been developed, such as a large loose-leaf manual for a Reading Resource Room, Structured in-service training for staff was described under Yes but nothing has been written down.

System B. All the above-mentioned components will be developed under the auspices of the university research project.

The respondent mentioned that the literature is quite specific as to competencies required; the task is to incorporate the research knowledge into the system's administrative functioning, with the cooperation of the Parenting Committee of the research project.

System C. System C has identified a list of required competencies, as well as desirable qualities, for teachers of some types of special education classes. It is moving, as time allows, to developing similar lists for the regular teachers of integrated classrooms. In part, System C has imposed the responsibility of competency-identification upon itself because its provincial government does not require a competency-based certification of teachers, beyond the standard teaching degree. Few in-service materials have been developed. Most of those available apply to the close-to-normal child who needs learning assistance within the regular class. Materials on the severely or the physically handicapped are sparse. In-service training is also a lack. The confidential paper presently before the Board requests staff to field a program of in-service for the regular teacher.

System D. System D has not produced a formal list of desirable teacher competencies; however, it leans to some extent on the fact that the teacher-training institutions of its province use a competency-based instruction model. In-service materials have not been developed to any extent. In-service training programs are provided on an ad hoc basis as required. For example, if a blind child is to be moved into a school, meetings with the teachers are held, perhaps the teachers would be invited to visit a school for the blind, etc.

System E. Specification of teacher competency is left to the superintendents who do the hiring. Some in-service materials have been borrowed from other school systems, especially tests and observation schedules to help regular teachers identify learning disabled children. In-service training programs were introduced in highly structured fashion when integration programs were begun; the respondent did not know if the structured training was still in operation.

Topic H - Special Staffing, Equipment, Materials, Facilities, and Services for Integration. Two questions were asked under this topic heading. One inquired about the existence of plans to provide special resources; the other asked if the resources were actually being provided. The complete set of replies have been entered onto a copy of the relevant page of the interview schedule, following this topic heading.

There is no system which has created overview plans to equip all the schools with any type of resource. The respondents who answered "Yes ..." would proceed to explain that nothing was written down because facilities, etc., were supplied in response

IX. SPECIAL STAFFING, EQUIPMENT, MATERIALS, FACILITIES, AND SERVICES FOR INTEGRATION

QUESTIONS	NO	NO BUT THIS IS BEING PLANNED	YES BUT NOTHING HAS WRITTEN DOWN	YES AND SOMETHING HAS BEEN WRITTEN BUT IT IS NOT AVAILABLE	YES AND IT'S WRITTEN AND AVAILABLE
A. Has your school system developed specific plans to provide resources like each of the following to help students and staff in integrated classrooms and schools?		(Interviewer: request details & record them on separate sheets.)	(Interviewer: request details & record them on separate sheets.)	(Interviewer: request details & record them on separate sheets.)	(Interviewer: request documentation for each item in this column.)
1. special staffing patterns?	AE	--	CD	--	--
2. additional staff?	E	C	D	A	--
3. special equipment?	--	--	CDE	A	--
4. special materials?	E	--	CD	A	--
5. special facilities?	--	C	DE	A	--
6. special services (e.g., transportation, counselling, tutorial assistance)?	--	--	CDE	A	--

B. Has you system actually provided these resources to schools attempting to integrate students (if possible, please indicate your responses in terms of the percentage of schools to which such resources have been provided):	Less than 25 percent of our schools have received this type of resource support for integration.	25 - 49 percent of our schools have received this type of resource support for integration.	50 - 75 percent of our schools have received this type of resource support for integration.	More than 75 percent or our schools have received this type of resource support for integr-tion.
1. special staffing patterns?	CDE	--	--	A
2. additional staff?	DE	C	--	A
3. special equipment?	ADE	C	--	--
4. special materials?	DE	C	--	A
5. special facilities?	DE	AC	--	--
6. special services?	DE	--	AC	--

The individual speaking for System B stated that he could not reply to the questions as asked. With regard to Question A, the respondent noted that resources are deliberately provided on an ad hoc basis, rather than a system-wide basis. With regard to Question B, he commented that special staffing patterns "may work well" in 25 - 49% of the schools. There is no additional staff. There is $50-$75 allocated per child for materials and equipment. Transportation, tutorial service and resource rooms are provided where the provincial grant regulations allow. Every school has a resource room; it is required by the contractual agreement with the teachers.

to particular need. Some facilities are starting to be built with provision for the physically handicapped. System E is building a new high school with lab, entrance and washrooms designed to accommodate wheelchairs.

Looking at the replies to Question P, it is clear that the tendency is still to integrate in a relatively small number of schools. If we assume that these estimates are fairly accurate, only System A and probably System B, build integration services into more than 3/4 of their schools. Two types of "special staffing patterns" were mentioned. System C builds in extensive teacher aide assistance, and System D reduces pupil/teacher ratio. Most systems provide transportation and counselling assistance. However, not all provide tutorial assistance. System C is starting to talk of creating a Teaching and Evaluation Centre, to provide educational diagnosis as well as in-service opportunities for teachers. Detailed description of equipment and materials provided was not elicited during the interviews.

Topic I - Methods for, and Results of, Evaluating the Impact of Integration.

> *1. Has your school system developed evaluation instruments for measuring the impact of integration on:*
>
> *a. handicapped students?*
> *b. non-handicapped students?*
> *c. school staff?*
> *d. parents of handicapped students?*
> *e. parents of non-handicapped students?*

No system has actually developed evaluation instruments for any of these groups. System B will soon be developing instruments for all these target populations through its comprehensive research project. System C is planning to develop instruments for handicapped and non-handicapped students only.

As a side topic, the respondent from System B mentioned a small study of students in a segregated system school for the educable mentally retarded. The program in this school was well-designed and is well-staffed. The gains in self-concept in the children were extensive, and the "graduates" are starting to show excellent job retention records.

> *2. Has your school system actually collected evaluation data on the impact of integration on:*
>
> *a. handicapped students?*
> *b. non-handicapped students?*
> *c. school staff?*
> *d. parents of handicapped students?*

e. parents of non-handicapped students?

No system has collected data to evaluate the effects of integration.

3. Based on the information available, how successful do you think your school system's approach to integration has been in terms of its impact on:

- *a. handicapped students?*
- *b. non-handicapped students?*
- *c. school staff?*
- *d. parents of handicapped students?*
- *e. parents of non-handicapped students?*

Respondents could not, of course, base their replies to this question on objective data. Replies were in the nature of subjective opinion. Few explanatory comments were offered with the ratings. Replies tended to be broad generalizations based upon the individual's total range of experience with handicap integration.

The question and response format below are copied from the interview schedule, with the replies written in.

4. Based on the information available, how successful do you think your school system's approach to integration has been in terms of its impact on:

- *a. handicapped students?*
- *b. non-handicapped students?*
- *c. school staff?*
- *d. parents of handicapped students?*
- *e. parents of non-handicapped students?*

NLY SLIGHTLY SUCCESSFUL	MODERATELY SUCCESSFUL	SUCCESSFUL	VERY SUCCESSFUL	NO BASIS FOR ANSWER
(Less than 25 ercent of these eople have enefited.)	(25 - 49 percent of these people have benefited.)	(50 - 75 percent of these people have benefited.)	(More than 75 percent of these people have benefited.)	
		CD	ABE	
	B	D	AC	C
B	E	CD	A	
B		D	ACE	
		D	AC	BE

All respondents rate the impact of their system's approach to integration on the handicapped student as at least "successful": 50-75% of the pupils have benefited. Three of the five individuals rated impact as "very successful": more than 75% have benefited. As the table clearly indicates, impact on all five of the listed target groups is perceived as favourable. System A explained their consistently high ratings by the selectivity of their procedures on deciding whom to integrate. If the candidates for integration are well-chosen, there is little chance of failure. System B provides two exeptional low ratings. Explanations offered for the low ratings were: confrontational tactics between teachers and administration, which left behind bitter feelings; and use of unskilled, inexperienced social workers to handle the parent groups.

Topic J - Methods for, and Results of, Estimating the Costs of Integration.

1. *Has your school system developed procedures for estimating the costs of integrating handicapped students in regular classrooms?*
2. *Has your school system actually produced cost estimates?*
3. *Has your system developed accounting procedures for calculating the actual costs of integration?*
4. *Are data on actual costs available?*

Systems tended to answer No to these questions with some exceptions and some qualifications.

System A. No.

System B. Exact cost data could be quickly retrieved in this system because of the administrative norms of the provincial government. Allowances for books, resource teachers, etc. are all standardized according to formula. The respondent estimated the cost of integrating one child per year to be approximately \$50-\$100 (for materials) + \$800 (1/25 of a regular teacher's salary) + \$120 (1/25 of \$3000 which is the allotment for the resource room for each school) = \$1,000 (approximately). System B does not normally bother to calculate the total cost of its integrative efforts, but it could easily do so.

System C. System C has readily at hand cost data for all its Special Education programs. For the fiscal year 1978/79, the total was budgetted at slightly less than \$7 million, which includes direct costs plus an estimated 20% of support staff. However, Special Education includes both integrated and segregated activity. As well, costs associated with integration may appear in parts of the budget other than Special Education. Accounting procedures to break out integration costs have not been developed.

System D. System D could estimate the cost of educating some particular types of disabled children. For example, they could retrieve costs associated with integration of the blind, or of an orthopedic handicap. However, such costs are not normally calculated. Costs would be calculated on the basis of portion of teacher salary, teacher aide time, etc.

System E. This system has no accounting procedures to estimate integration cost. However, it is in the process of conversion to a computerized accounting system, and different types of accounting will be more feasible when the computerization is complete

SUMMARY AND DISCUSSION OF THE FINDINGS

This chapter will bring together selected major findings from the previous two chapters. Commentary based on consideration of the total amount of interview material is also provided.

Major findings from the series of interviews are as follows:

1. All 5 systems provide both for segregated instruction and for integrated learning for handicapped students. Most often, the extent of integration-segregation is determined on a case-by-case basis, with reference to student need and resources available.

Integration-segregation is rarely an either/or decision. The issue is usually one of desired amount of integration for a particular child.

2. Integration takes one of two predominant models: the handicapped student is either located in a special class within a regular school, where he/she will join a regular class for selected activities such as physical education, art, etc.; or the handicapped student is registered directly in a regular class in a regular school. When the handicapped student is a member of the regular class, he/she may be removed from that class for short periods of instruction.

3. Three of the five systems have integrated at least some children with every type of handicap. One of the five systems does not integrate children with other forms of handicap. The fifty system does not report integrating students with auditory impairments, and it integrates very few visually impaired. There is variation between the systems in terms of number of schools with integrated handicapped children.

4. One of the five School Boards has adopted a policy resolution on handicap integration, two of the five Boards are

moving into consideration of the area. The remaining two Boards have felt no need to formally consider integration policy.

5. Considerations involved in designing a successful integration program emerge consistently from one system to another. Major considerations are: regular teacher preparation, training and time availability; provision of adequate specialized instruction for the child; increased costs; peer and staff receptivity to handicapped students.

6. Systems report a variety of use of in-service training, special materials, equipment, etc. Provision of these is most often on an ad hoc, rather than system-wide basis, and there is variation between the systems in terms of amounts of these resources.

7. No system has developed evaluation instruments or has collected evaluation data for use in assessing its programs for the handicapped. One of the five systems has begun a research project to accomplish such ends. A second system indicates an intention to move into formal evaluative activity.

8. No system routinely aggregates financial data on the costs of integration programs. Only one of the systems has an accounting procedure which facilitates retrieval of such cost-data. This latter system is also the only one which could easily retrieve a count of total number of integrated pupils.

9. Estimates of benefits of integration to involved parties tend to be very favourable. Two systems estimate that 50-75% of the handicapped pupils have benefited; the remaining three systems place the estimate at more than 75%.

Looking at these five systems generally, it would appear that all are moving in the direction either of increasing the extent of integration and/or of improving the resources to support integration. All systems have had some experience with integrating children with several different types of handicap; no system is cutting back on its programming. Reasons for continuing with integration are found in perceived benefits to the child; the administrative and financial problems of fielding an integration effort can be severe.

Two major problems in the actual teaching of an integrated class are identified. Too many of the regular teachers do not have the flexibility or the skill to adapt to the presence of an atypical student in their class. Successful integration requires teachers with ability above the average. The special resource teacher, in addition, finds difficulty in meeting the needs of the handicapped child when she sees him only an infrequent basis. Her knowledge of the child is limited, and she does not have the control over the child's experience which she would have in a closed setting. The working out of responsibilities between the regular and the special teacher was identified as a severe problem in at least one of the five systems.

Potential discrimination against the handicapped was mentioned as a concern. At least two of the respondents noted that the abilities and attitudes of the regular teacher were a key factor in this regard. A capable teacher can have considerable influence over the understanding and attitudes of the non-handicapped children.

One system reported that integration has saved them money in at least one respect. If the children are educated in their neighbourhood school, they do not have to be transportated to a central location. But, generally speaking, integration is expensive. In-school tutors, teachers' aides, facility modifications, equipment, in-service training, etc. are all part of the integration package. Nonetheless, not one of the five systems had figures at hand concerning the costs of their integration activities. The fact that integration requires support from so many different sides makes calculation of costs difficult. The systems discussed in this report have never been faced with a need to present total costs, and accounting procedures to allow for this possibility are generally undeveloped.

Despite the difficulties which have been encountered, all respondents were generally enthusiastic and supportive of integration programs. Perceived benefits to children were mainly in the social and emotional areas; there was some feeling among at least three of the respondents that academic instruction for certain handicaps was better provided in a specialized setting. It would appear that any system working to integrate its exceptional children will have to take care that it does not lose the gains formerly provided by its specialized, segregated settings.

If the attitudes of the five individuals reporting are generally combined and expressed, a reasonable summary would read as follows: if the very real financial requirements of adequate resource support can be met, then integration of handicapped students in the degree appropriate to their learning abilities is highly recommended.

APPENDIX

Listing of Advantages and Disadvantages of Integration

: By School Systems

System A

Advantages

1. reduces stigma
2. child is in his home community
3. child has appropriate peer models; when the handicapped are together with the handicapped, they tend to act more handicapped
4. all pupils, parents and staff can gain a better understanding of the handicapped; this is both a short-term and a long-term goal
5. more normal state of affairs

Disadvantages

1. fragmentation of special services; the resource teacher cannot know pupils as well
2. more expensive
3. teachers not always willing or properly trained
4. less individualized instruction for the other pupils, the atypical handicapped stand out, and take teacher time
5. needs of special pupil less likely to be met, especially if there is more than one handicapped in the class
6. generally, need more experienced teachers for an integrated classroom
7. can create social problems for the handicapped child; lack of acceptance
8. self-concept may suffer; the handicapped is generally disadvantaged in a competitive sense

System B

Advantages

1. opportunities for socialization and peer contact

2. normalization possible

3. special education facilities are often given second class status within the school system; integration eliminates this

4. self-concept may improve (but it may also worsen: the respondent has seen both)

Disadvantages

1. lack of goal control and monitoring; the regular teacher cannot do the tight assessments of the special education teachers

2. danger of trivial goals being imposed by a centralized attempt to control decentralization

3. danger of ill-defined norms of learning behaviour

4. teachers with limited repertoire of teaching methods and materials

5. lack of system readiness; specifically, no in-service training

6. lack of system readiness; specifically, no critical path guidelines for program implementation

7. self-concept may suffer; particularly at the secondary level where there is a limited range of course options

8. Rigidity at the high school level

System C

The individual representing System C began by stating that there was not a blanket list of advantages and disadvantages, as results were too variable according to individual circumstance. However. he was willing to make the following generalizations:

Advantages	Disadvantages
1. child is in a more realistic situation	1. assistance to the child is often inadequate; he does not receive enough individual, specialized attention
: he may profit, depending on the handicap	
: he may find his expectation level raised	2. child may suffer discrimination from peers and from staff

System D

Advantages

1. minimizes labelling

2. provides normalizing experience with neighbourhood peers

3. prepares child for living and working in a real-life environment

4. eliminates stigma of the segregated setting

5. eliminates transportation costs; pupil is educated in his home neighbourhood

6. normals can come to know and accept the handicapped

7. increases staff flexibility in teaching styles

8. increases self-confidence of the child and his parents

9. increases community support for the handicapped because they are now visible

Disadvantages

1. expenditures of time and personnel; time required to find an appropriate placement is large

2. expensive; teacher aides, equipment, etc. required

3. danger that the handicapped may become effectively segregated in the midst of the "integrated" class

4. heavy demands on untrained teachers

5. education is being forced to assume responsibilities which formerly belonged to Social Services, Correctional Services, etc. education cannot always afford to assume the costs

System E

The representative from System E addressed his remarks particularly to the program for integration of the deaf. He did so because this program has been particularly successful, and because he had written comments from teachers and parents on the program. However, he emphasized that the comments were generalizable; he has heard verbal expression of similar comments from parents of children in other programs.

Advantages	Disadvantages
1. closer to a normal setting; more frequent interaction with normal children, both academically and socially	1. better curriculum in the segregated setting (he notes that this may change within a decade but it is true for now)
2. competition provides greater challenge (he notes that not all parents agree with this)	2. if a child is integrated in a non-neighbourhood school he loses his friends
3. children happier; learn to get along better with others	3. if the child's school is some distance from home, he spend a lot of travel time
4. increased maturity in the children	4. resource services are harder to come by if the children are spread geographically
5. children are more accepted if they are integrated at a young age	
6. provides accessibility to resources which the children really need; they are helped to overcome difficulties	